BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2008-0273
	)	
Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs	)	
	)	

COMMENTS OF ZERO EMISSIONS LEASING LLC AND CLEAN ENERGY MAUI LLC ON PROPOSED TIER 1 AND TIER 2 TARIFFS

AND

CERTIFICATE OF SERVICE

CHRIS MENTZEL
Chief Executive Officer
Clean Energy Maui LLC
619 Kupulau Drive
Kihei, Hawaii 96753
Telephone: (808) 214-7678

ERIK W. KVAM
Chief Executive Officer
Zero Emissions Leasing LLC
2800 Woodlawn Drive, Suite 131
Honolulu, Hawaii 96822
Telephone: (808) 371-1475

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2008-0273
	)	
Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs	)	
	)	

COMMENTS OF ZERO EMISSIONS LEASING LLC AND CLEAN ENERGY MAUI LLC ON PROPOSED TIER 1 AND TIER 2 TARIFFS

ZERO EMISSIONS LEASING LLC ("Zero Emissions") and CLEAN ENERGY MAUI LLC ("Clean Energy Maui") respectfully submit the following comments on the Tier 1 and Tier 2 Feed-in Tariffs proposed by the Hawaiian Electric Companies (the "HECO FIT"), and by Clean Energy Maui and Zero Emissions (the "CEM/ZEL FIT"), in the above-referenced proceeding:

Study of the German FIT

In the summer of 2009, Chris Mentzel, CEO of Clean Energy Maui, researched renewable energy in Germany and performed an exhaustive study (the "CEM Study") of 19 years history of the German FIT with a special eye on what can be adopted for Hawaii. The CEM Study can be downloaded at: www.FIT-Hawaii.com/Successes.pdf and is included in our filing by reference.

Overview

In its Decision and Order filed September 25, 2009 (the "D&O"), the Public Utilities Commission (the "Commission") stated that FITs "were a possible mechanism 'to

dramatically accelerate the addition of renewable energy from new sources' and to 'encourage increased development of alternative energy projects'." *D&O* at 13. The Commission said that it "will direct the HECO Companies to adopt FITs in their respective service territories ... consistent with the principles described below." *D&O* at 17. Those principles included a requirement that the HECO Companies "adopt standards that establish when additional renewable energy can or cannot be added on an island or region therein without markedly increasing curtailment, either for existing or new renewable projects." *D&O* at 50.

The National Renewable Energy Laboratory (see Attachment A hereto) has defined a "Feed-in Tariff (FIT)" as:

> A renewable energy policy that typically offers a **guarantee of:**
>
> 1. **Payments** to project owners for total kWh of renewable electricity produced
>
> 2. **Access to the grid**; and
>
> 3. Stable, long-term contracts (15-20 years)

Feed-in tariffs ("FITs") accelerate the addition of renewable energy from new sources and encourage increased development of alternative energy projects by obliging the utility to interconnect such projects (*i.e.*, a guarantee of access to the grid, provided the utility's safety and reliability requirements are met), and by obliging the utility to purchase such renewable energy at a fixed long-term rate (*i.e.*, a guarantee of payments to project owners for total kWh of renewable electricity produced). FITs encourage accelerated development of renewable energy projects because these obligations give project developers the revenue certainty that they need to obtain financing for their projects.

Just as revenue is the product of price and quantity:

Price x Quantity = Revenue

so revenue certainty is the product of price certainty and quantity certainty:

Price Certainty x Quantity Certainty = Revenue Certainty

FITs create revenue certainty by creating price certainty and quantity certainty. FITs create price certainty by specifying a fixed long-term rate at which the utility is obliged to purchase renewable energy. FITs create quantity certainty by obliging the utility to interconnect the renewable energy project (provided safety and reliability requirements such as Rule 14H are met) for delivery of renewable energy to the utility, and by obliging the utility to purchase quantities of renewable energy generated by the project.

A feed-in tariff that obliges the utility to interconnect the renewable energy project and to purchase renewable energy generated by the project at a fixed long-term rate creates 100% revenue certainty by creating 100% price certainty and 100% quantity certainty:

100% Price Certainty x 100% Quantity Certainty = 100% Revenue Certainty

In contrast to a feed-in tariff mechanism, a mechanism that specifies only a fixed long-term rate at which the utility may, but is not obligated to, purchase renewable energy, and that contains no obligations to interconnect renewable energy projects and to purchase renewable energy generated by such projects, creates 0% price certainty, 0% quantity certainty and 0% revenue certainty:

0% Price Certainty x 0% Quantity Certainty = 0% Revenue Certainty

A mechanism that specifies only a fixed long-term rate at which the utility may, but is not obligated to, purchase renewable energy, and that contains no obligations to interconnect renewable energy projects and to purchase renewable energy generated by

such projects, is called a "standard offer contract" mechanism. A standard offer contract mechanism is not a feed-in tariff because the standard offer contract mechanism does not contain the utility obligations that create the revenue certainty that project developers need to obtain financing for their projects.

Comments on the HECO FIT

1. **The HECO FIT is fatally defective because it contains no utility obligation to interconnect renewable energy projects and contains no utility obligation to purchase total renewable energy from such projects.**

The Commission directed "the HECO companies to adopt FITs in their respective service territories ..." *D&O* at 17. A FIT encourages increased development of renewable energy projects by guaranteeing access to the grid (*i.e.*, obliging the utility to interconnect such projects, provided that interconnection safety and reliability requirements like Rule 14H are met), and by guaranteeing payments to project owners for total kWh of renewable electricity produced (*i.e.*, obliging the utility to purchase renewable energy at a fixed long-term rate). *See* NREL definition of "FIT" at Attachment A. A FIT encourages such development because these obligations give project developers the revenue certainty that they need to obtain financing for their projects.

The HECO FIT contains no obligation to interconnect a renewable energy project that qualifies for the FIT, and contains no obligation to purchase energy generated or that could be generated by such a project. Because the utility has no obligation to interconnect a qualifying project and no obligation to purchase the energy generated or that could be generated by the project, the project developer has 0% certainty about the quantity of energy for which it will be paid by the utility, and 0% certainty about the amount of revenue that the developer will derive from the project.

0% revenue certainty means that the developer will not be able to get financing for the project and the project will not get developed. The HECO FIT is fatally defective as a policy to 'encourage increased development of alternative energy projects' because the HECO FIT lacks the 2 elements -- guaranteed access to the grid and guaranteed payments to project owners for total kWh of renewable electricity produced -- that create the quantity certainty and revenue certainty needed by project developers to obtain financing for their projects.

The HECO FIT provides only 1 of the 3 elements of a FIT – stable long-term contracts – and lacks the 2 elements -- guaranteed access to the grid and guaranteed purchases of total kWh of renewable energy produced – that create the quantity certainty and revenue certainty needed by project developers to finance their projects. In proposing the HECO FIT that lacks 2 of the 3 essential elements of a FIT, the HECO Companies have failed to comply with the Commission's direction to the HECO Companies "to adopt FITs in their respective service territories." *D&O* at 17.

Without utility interconnection and purchase obligations that create quantity certainty and revenue certainty for project developers, a "standard offer contract" mechanism, like that contained in the HECO FIT, is indistinguishable from the existing mechanism for bilateral negotiation of the price and quantity of renewable energy that the utility is willing to buy under a power purchase agreement. Without utility interconnection and purchase obligations under a FIT, the project developer is compelled to bilaterally negotiate with the utility, outside the FIT framework, the quantity of renewable energy that the utility is willing to buy, because the project developer still needs quantity certainty to obtain financing for the project. Once quantity gets negotiated outside the FIT framework, then price also gets negotiated outside the FIT framework

because the bilateral negotiation mechanism "will ... remain an option" (*D&O* at 24), which means the FIT rates are not binding on either the utility or the developer in the bilateral negotiation mechanism. Under the HECO FIT, which lacks utility interconnection and purchase obligations, the FIT rates are nothing more than non-binding price guidelines for bilateral power purchase agreement negotiations between developers and the utility.

Without utility interconnection and purchase obligations, there is no need for a queue because there is no specified quantity of renewable energy (that the utility is obliged to purchase) for the developers to stand in line to sell. Without utility interconnection and purchase obligations, the queuing procedure for the HECO FIT is nothing more than the utility deciding in what order it will entertain bilateral negotiation of renewable energy project proposals.

From the developer's point of view, bilateral negotiation conducted through the "standard offer contract" mechanism of the HECO FIT is inferior to the existing bilateral negotiation mechanism (that "will ... remain an option" *D&O* at 24) because the existing mechanism does not require that the developer pay an application fee and wait in a queue to find out whether the utility is willing to buy the renewable energy generated by the proposed project. The HECO FIT mechanism is also inferior to the existing bilateral negotiation mechanism because HECO FIT mechanism with its binding FIT rates would preclude the developer from seeking a rate higher than the FIT rate to make up for lower quantity sold to the utility due to curtailment by the utility.

2. The HECO FIT fails to encourage accelerated development of renewable generation because it contains no utility obligation to curtail non-renewable generation to accommodate new renewable generation.

The Commission directed the HECO Companies to adopt reliability standards "that establish when additional renewable energy can or cannot be added on an island or region therein without markedly increasing curtailment, either for existing or new renewable projects." *D&O* at 50. The Commission-directed reliability standard for curtailment means that the utility has no obligation to interconnect new renewable generation unless the utility has discretion to curtail such new renewable generation, to avoid curtailment of existing or other new renewable generation. The corollary of the reliability standard for curtailment is that the utility has an obligation to interconnect new renewable generation only to the extent that the utility is obliged to curtail ***non***-renewable generation (*e.g.*, fossil fuel peaking generation).

The reliability standard for curtailment creates, therefore, a *de facto* aggregate system cap on new renewable generation in an amount equal to the amount of ***non***-renewable generation that the utility is obliged to curtail to make room for the new renewable generation under the FIT. Under the HECO FIT, the *de facto* aggregate system cap on new renewable generation is zero because, under the HECO FIT, the utility is not obliged to curtail any non-renewable generation to make room for interconnection of new renewable generation.

A FIT that allows the utility to set a *de facto* aggregate system cap as low as zero is a FIT that provides no interconnection obligation by the utility. Such a FIT does not create the quantity certainty and the revenue certainty that project developers need to obtain financing for their projects.

Put another way, the effective aggregate system cap on new renewable generation under the FIT will be the lower of (1) 5 percent of 2008 peak system demand (*D&O* at 55), or (2) the specified amount of new renewable generation accommodated by the

utility's obligation, under the FIT, to curtail a specified amount of non-renewable generation. The HECO FIT omits the 5 percent cap, in plain defiance of the *D&O*. In omitting the 5 percent cap, the HECO Companies implicitly admit that the aggregate system cap on new renewable generation under the HECO FIT is effectively zero because, under the HECO FIT, the HECO Companies have no obligation to interconnect qualifying renewable projects, no obligation to purchase renewable energy from such projects, and no obligation to curtail non-renewable generation to accommodate new renewable generation under the HECO FIT.

To create the revenue certainty that developers need to finance their projects, and to create a FIT that complies with the Commission-directed reliability standard for curtailment, developers will need – in addition to the utility's obligations to interconnect their projects and to purchase all the energy generated or that could be generated by their projects – a utility obligation to curtail specified amounts of non-renewable generation, by generation type, to accommodate specified amounts of new renewable generation under the FIT, by generation type, consistent with present-day levels of reliability, not to exceed, in the aggregate, 5% of the utility's 2008 peak demand.

The amounts of non-renewable generation that the utility will be obliged to curtail will need to be determined during the "Reliability" phase of the FIT proceeding. To determine these amounts, the Commission and the parties will need to know: (1) how much renewable generation and how much non-renewable generation, by generation type, is currently being curtailed by each of the HECO Companies, (2) the HECO Companies' current order or priority of curtailment, (3) how much non-renewable generation, by generation type, the utility is able to curtail, (4) how much new renewable generation, by generation type, could be accommodated by specified amounts of curtailment of non-

renewable generation, consistent with present-day levels of reliability, with (a) present-day transmission and distribution, and (b) improved transmission and distribution (not including additions to firm generation, storage, or demand-side management), and (5) what renewable generation facilities, by generation type and facility size, are or should be non-curtailable.

3. The HECO FIT is fatally defective because it does not provide a compensation mechanism that creates quantity certainty and revenue certainty for project developers and that is consistent with the Commission-directed reliability standard for curtailment.

Under the HECO FIT, Tier 1 and Tier 2 projects are potentially curtailable, but the FIT rates are based on an assumption that no curtailment will occur. Potential curtailability creates 0% quantity certainty and 0% revenue certainty for the project owner because the project owner is locked into a long-term rate under the FIT and any curtailment results in an absolute revenue loss for the project owner. If a FIT project is curtailable, and if the project developer is not compensated at the FIT rate for the energy that would have been generated and delivered but for the curtailment, as is the case under the HECO FIT, the project is not going to get developed because the project developer lacks the quantity certainty and the revenue certainty needed to get the project financed.

There are two ways to address the lack of quantity certainty and lack of revenue certainty created by potential curtailability. The simple efficient way is to create 100% quantity certainty and 100% revenue certainty by obliging the utility to compensate the project owner for the quantity of renewable energy that the project would have generated and delivered to the utility but for the utility's curtailment of such generation. That is the way contained in the CEM/ZEL FIT, but rejected by the HECO FIT.

The wildly complex and inefficient way is to predict "typical" quantities of curtailed and non-curtailed generation, by generation type and project size, with a high degree of certainty over a 20 year period and then specify a FIT rate, higher than the FIT rate applicable to non-curtailable facilities, that when multiplied by the predicted quantity of non-curtailed generation over a 20 year period will yield a revenue stream that is sufficiently certain to obtain financing for the project. The HECO FIT does not contain that way either, but that is the way the Commission would have to go -- in the absence of a FIT that compensates the project owner for curtailed generation at the FIT rate – during the "Reliability" phase of this docket to create a FIT that is consistent with the reliability standard for curtailment and that achieves the quantity certainty and revenue certainty needed to accelerate development of renewable generation.

Comments on the CEM/ZEL FIT

1. The CEM/ZEL FIT contains utility interconnection and purchase obligations to encourage accelerated development of renewable generation.

The CEM/ZEL FIT contains utility obligations to interconnect renewable energy projects and to offer "standard offer contracts with commission-approved FIT rates and mandated terms and conditions" (*D&O* at 87) for the purchase of renewable energy generated by such projects, as "essential terms under which renewable energy will be purchased." *D&O* at 16. The CEM/ZEL FIT contains the utility obligations -- to interconnect renewable energy projects and to purchase renewable energy at the fixed long-term rate – that create the revenue certainty which project developers need to obtain financing for their projects.

2. The CEM/ZEL FIT accommodates a utility obligation to curtail a specified amount of non-renewable generation to make room for new renewable generation under the CEM/ZEL FIT.

The Commission directed the HECO Companies:

> ... to develop reliability standards for each company, which should define most circumstances in which FIT projects can or cannot be incorporated on each island ... The commission in particular wants the HECO Companies to adopt standards that establish when additional renewable energy can or cannot be added on an island or region therein without markedly increasing curtailment, either for existing or new renewable projects ...

D&O at 50. Consistent with the Commission's direction, the CEM/ZEL FIT provides:

> "Reliability Standards" means standards developed and adopted by the Company, and approved by the Commission, that establish when an additional Renewable Energy Generating Facility can or cannot be interconnected with the Company's electric system on an island or region therein without markedly increasing curtailment of existing or new Renewable Energy Generating Facilities.

and obliges the utility to "interconnect such Renewable Energy Generating Facility to the electric system of the Company, provided that technical requirements set forth in the Company's Reliability Standards, as approved by the Commission, are met."

To create the revenue certainty that developers need to finance their projects, and to create a FIT that complies with the Commission-directed reliability standard for curtailment, developers will need a utility obligation to curtail specified amounts of non-renewable generation, by generation type, to accommodate specified amounts of new renewable generation under the FIT, by generation type, consistent with present-day levels of reliability, not to exceed, in the aggregate, 5% of the utility's 2008 peak demand. The amounts of non-renewable generation that the utility will be obliged to curtail will need to be determined during the "Reliability" phase of the FIT proceeding.

3. The CEM/ZEL FIT achieves quantity certainty and revenue certainty to encourage accelerated development of renewable generation, consistent with the Commission-directed reliability standard for curtailment.

The CEM/ZEL FIT accommodates two solutions to the problem of devising a FIT that provides the utility obligations needed to create quantity certainty and revenue

certainty for project developers, and that is consistent with the Commission-directed FIT reliability standard for curtailment:

a. The CEM/ZEL FIT accommodates specification of non-curtailable renewable energy generating facilities that will be eligible for the FIT.

The first solution is specification, by technology type and size, of ***non-curtailable*** renewable energy generating facilities that will be eligible for the FIT. Renewable energy delivered from such facilities would be purchased at the FIT rate specified under the column heading "not compensated for curtailment" for non-curtailable facilities of the specified technology type and size. This solution is consistent with the Commission's statement that, "The commission will also consider, if needed, a FIT tariff that proposes a lower FIT rate for generators that do not have the ability or the willingness to curtail output upon the utility's request." *D&O* at 82.

Clean Energy Maui and Zero Emissions believe that Tier 1 systems (up to 20 kW) should be non-curtailable. Net energy metered (NEM) systems up to 100 kW are not curtailed. Clean Energy Maui and Zero Emissions are not aware of any evidence that non-curtailment of NEM systems (which have generating capacity approaching 3% of peak demand on Maui and Hawaii) has caused any safety or reliability issues for the grid. Therefore, Clean Energy Maui and Zero Emissions believe that the Commission should permit Tier 1 systems to be non-curtailable, in the absence of any substantial evidence that such systems would create safety and reliability issues for the grid.

Clean Energy Maui and Zero Emissions also believe that the Commission should consider revising the *D&O* to increase the 5% carve-out for Tier 1 installations (*D&O* at 57) to at least 33% of the aggregate system cap based on 2008 peak demand. The reason is that, in Germany, over 80 percent of the German installations are small systems, yet

these small systems provide, in the aggregate, the major part of German renewable energy. These small systems also create more local jobs and are much less critical to grid stability. The 5% carve-out specified in the *D&O* will create a run and fill up the Tier 1 FIT queue within minutes, instead of giving Hawaii a policy that can be applied longer-term.

b. The CEM/ZEL FIT accommodates compensation for curtailment of curtailable renewable energy generating facilities.

The second solution, applicable to all ***curtailable*** renewable energy generating facilities, has two components:

The first component is specification, in the reliability standard for curtailment, of the amount of renewable energy, by type of renewable energy generating facility, that the utility is obliged to purchase based on the amount of ***non***-renewable generation that the utility is obliged to curtail to make room for the new renewable generation under the FIT. This component is necessary to create quantity certainty about the aggregate amount of renewable energy that the utility is obligated to purchase under the FIT. This is consistent with the Commission-directed reliability standard for curtailment *(D&O* at 50) and the Commission's direction to adopt FITs (*D&O* at 16).

The second component is an obligation of the utility to purchase all renewable energy generated by the facility and delivered to the utility, and to purchase all renewable energy that would be generated by the facility and delivered to the utility but for curtailment by the utility of such generation or delivery. Such renewable energy would be purchased at the FIT rate specified under the column heading "compensated for curtailment" for curtailable facilities of the specified technology type and size. This component is necessary to create quantity certainty about the amount of renewable energy that the utility is obligated to purchase from a specific facility under the FIT. This also is

consistent with the Commission-directed reliability standard for curtailment *(D&O* at 50) and the Commission's direction to adopt FITs (*D&O* at 16).

The Commission stated that, "In light of the uncertainties involved in estimating the level and effect of curtailment, without prior experience with the FIT process, the commission will not establish a compensation mechanism for curtailment of FIT projects at this point in time." *D&O* at 71. The Commission's statement should be interpreted in light of the Commission's direction that the HECO Companies adopt reliability standards "that establish when additional renewable energy can or cannot be added on an island or region therein without markedly increasing curtailment, either for existing or new renewable projects." *D&O* at 50. The Commission's statement meant that the Commission was not establishing a compensation mechanism for curtailment *at the time of the D&O* because the Commission first needed to establish a mechanism for curtailment, in the form of a reliability standard for curtailment (*D&O* at 50), that addressed "the uncertainties involved in estimating the level and effect of curtailment" (*D&O* at 71). The Commission's statement does not proscribe the HECO Companies from adopting, and does not proscribe the Commission from approving, a FIT, such as the CEM/ZEL FIT, containing a compensation mechanism for curtailment that is consistent with the reliability standard for curtailment to be adopted by the HECO Companies.

c. The CEM/ZEL FIT achieves quantity certainty and revenue certainty, consistent with the Commission-directed reliability standard for curtailment.

To summarize, to create a Commission-directed feed-in tariff that provides revenue certainty to renewable energy project developers, and that is consistent with the Commission-directed reliability standard for curtailment, the feed-in tariff adopted by the HECO Companies and approved by the Commission requires:

(1) an obligation by the utility to interconnect the renewable energy project, provided that the utility's safety and reliability requirements (*i.e.*, Rule 14H) are met;

(2) an obligation by the utility to purchase renewable energy at the fixed long-term feed-in tariff rate specified in the FIT;

(3) for non-curtailable renewable energy projects: a specification, by technology type and size, of non-curtailable renewable energy generating facilities that will be eligible for the FIT;

(4) for curtailable renewable energy projects:

(a) specification of the amount of renewable energy, by type of renewable energy generating facility, that the utility is obliged to purchase based on the amount of non-renewable generation that the utility is obliged to curtail to make room for the new renewable generation under the FIT; and

(b) an obligation of the utility to purchase all renewable energy generated by the facility and delivered to the utility, and to purchase all renewable energy that would be generated by the facility and delivered to the utility but for curtailment by the utility of such generation or delivery.

The CEM/ZEL FIT contains or is consistent with the foregoing requirements. The CEM/ZEL FIT is consistent with the principles described in the *D&O*, which does not proscribe the foregoing requirements.

4. The CEM/ZEL FIT provides FIT rates designed to "move the market" to encourage accelerated development of renewable generation.

The FIT rates shown in the CEM/ZEL FIT are averages of the "levelized cost of electricity" drawn from proposed figures furnished to CEM and ZEL by Hawaii Solar Energy Association and Solar Alliance (for photovoltaic generating facilities), by Sopogy, Inc. (for concentrating solar power facilities), by Hawaii Renewable Energy Alliance (for onshore wind generating facilities) and by the HECO Companies (in-line hydro and baseline generating facilities) during the "Settlement" phase of the Tier 1 and Tier 2 portion of this proceeding. Clean Energy Maui and Zero Emissions support these FIT rates to the extent that the above-mentioned parties submit evidence to the Commission showing that the FIT rates contained in the CEM/ZEL FIT, or other FIT rate figures proposed by such parties, are adequate to "move the market" and encourage accelerated development of renewable energy projects in Hawaii.

5. The CEM/ZEL FIT provides a standard agreement that conforms to the CEM/ZEL FIT and eliminates the most project-discouraging provisions of the standard agreement contained in the HECO FIT.

Clean Energy Maui and Zero Emissions drafted the standard agreement contained in the CEM/ZEL FIT (the "CEM/ZEL Standard Agreement") by taking the proposed standard agreement contained in the HECO FIT (the "HECO Standard Agreement") and revising it (1) to conform to the CEM/ZEL FIT, and (2) to eliminate the most project-discouraging provisions of the HECO Standard Agreement. A copy of the CEM/ZEL Standard Agreement, blacklined to show the revisions to the HECO Standard Agreement, is attached as Attachment B hereto.

Some of the project-discouraging provisions eliminated include:

- Provisions obliging the project owner to operate the project in accordance with vaguely-defined "good engineering and operating practices," and provisions triggering default if the project owner fails to follow such practices in the opinion

of the utility; projects are not going to get financed if a project that is in full compliance with Rule 14H interconnection standards can be shut down and its revenue stream destroyed on the say-so of a utility engineer who believes the project owner is not following "good engineering and operating practices"; Rule 14H supplies the appropriate objective legal standard for installation, operation and maintenance of the facility.

- Provisions triggering default based on the financial status of the project owner, which has nothing to do with the utility's obligation to interconnect the project and purchase renewable energy from the project.
- Provisions relating to "Facility Development Milestones"; these are queuing procedures that need to be stated in the FIT itself, not in the standard agreement;
- Provisions giving the utility authority to unilaterally change the project owner's insurance coverages, risks, limits and costs
- Provisions placing virtually all of the utility-side interconnection costs on the project owner; such costs need to spread across rate base to accelerate renewable energy development, which is the purpose of the FIT; the Commission should adopt the German policy of requiring the utility to connect all systems with minimal delay and strengthen the grid wherever it is needed, except in rare cases where it is very uneconomical; in Germany that has led to a much more resilient grid and the utility gets the investment back in the next rate case.

* * * *

DATED: Honolulu, Hawaii, January 21, 2010

Erik Kvam
Chief Executive Officer
Zero Emissions Leasing LLC

Chris Mentzel by Erik
Chris Mentzel
President
Clean Energy Maui LLC

Attachment A

National Renewable Energy Laboratory
Innovation for Our Energy Future

Renewable Energy Feed-in Tariffs: Lessons Learned from the U.S. and Abroad

U.S. Department of Energy (DOE) Technical Assistance Project (TAP) Webinar

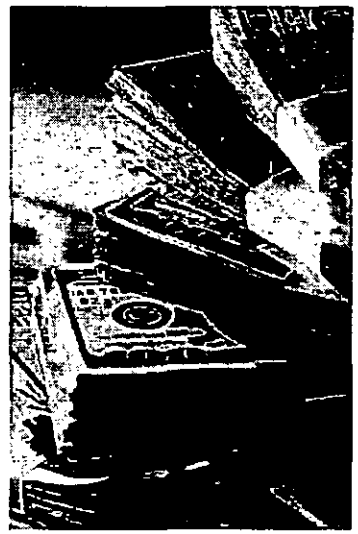
Karlynn Cory
Strategic Energy Analysis Center – Financing Team Lead

Oct. 28th, 2009

Feed-In-Tariff Definition

Feed-in Tariff* (FIT):** A renewable energy policy that typically offers a **guarantee of**:

1. **Payments** to project owners for total kWh of renewable electricity produced;
2. **Access to the grid**; and
3. Stable, **long-term contracts** (15-20 years)



* A tariff is an electricity rate paid for generation.

** Also called fixed-price policies, minimum price policies, standard offer contracts, feed laws, renewable energy payments, renewable energy dividends and advanced renewable tariffs.

STANDARD SCHEDULE FIT TIER 1 AND TIER 2 AGREEMENT

This Standard Schedule FIT Tier 1 and Tier 2 Agreement ("Agreement") is made on _____, and entered into by and between _____ ("Seller") and _____ ("Company"), sometimes also referred to herein jointly as "Parties" or individually as "Party."

This Agreement is applicable only to sellers who own, operate, manage, control and/or use a Renewable Energy Generating Facility ("Facility") as set forth in the Company's Schedule FIT relating to Feed-in Tariff purchases from renewable energy generators, and only to the Facility described and installed at the following location: _____.

This Agreement provides for (1) Seller's interconnection and operation of the Facility in parallel with the Company's distribution system ("System"), and (2) the Company's purchase of and payment for (a) all electrical energy generated by the Facility and delivered to the Company's System at the point of interconnection ("Point of Interconnection"), and (b) all electrical energy that would have been generated by the Facility and delivered to the Company's System at the Point of Interconnection, but for curtailment by the Company of such generation and/or delivery.

In consideration of the premises and the respective promises herein, the Company and the Seller hereby agree as follows:

1. Interconnection: The Company shall interconnect the Facility for operation in parallel with the Company's System in accordance with Schedule FIT and the Company's rules filed with the Hawaii Public Utilities Commission, and not by this Agreement.

2. Purchase of Energy by the Company; Billing and Payment:

(a) The Company shall purchase from the Seller and pay the Seller for all electrical energy generated by the Facility and delivered to the Company's System at the Point of Interconnection, and all electrical energy that would have been generated by the Facility and delivered to the Company's System at the Point of Interconnection, but for curtailment by the Company of such generation and/or delivery, pursuant to the terms and conditions of the applicable Schedule FIT rate schedule and Appendix C attached hereto commencing from the initial delivery of energy under this Agreement to the Company's System (the "Commercial Operation Date").

(b) The amount of energy that would have been generated generated by the Facility and delivered to the Company's System at the Point of Interconnection, but for curtailment by the Company of such generation and/or delivery shall be calculated by: (i) measuring the amount of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, at or immediately near the point of contact with the Facility during periods of curtailment and periods of non-curtailment, (ii) measuring the amount of energy generated by the Facility during periods of non-curtailment, (iii) determining the

Deleted: (20 kW OR LESS)
Deleted: (GREATER THAN 20 kW AND LESS THAN 500 kW) AGREEMENT
Deleted: Agreement
Deleted: _____
Deleted: _____
Deleted: _
Deleted: operate
Deleted: n
Deleted: Eligible
Deleted: facilities
Deleted: _____
Deleted:
Deleted: produced
Deleted: with the Company's System
Deleted: Parallel Operat
Deleted: agrees to allow the Seller to interconnect and operate in parallel
Deleted: the terms and conditions of this Agreement
Deleted: agrees to
Deleted: energy from the Seller
Deleted:
Formatted: Font: Times New Roman
Deleted: from the Facility

Attachment B

arithmetic relationship between the measured amounts of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, during periods of non-curtailment and the measured amounts of energy generated by the Facility during periods of non-curtailment, and (iv) using such arithmetic relationship to calculate the amount of energy that would have been generated by the Facility during periods of curtailment based on such measured amounts of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, during periods of curtailment.

(c) Seller shall sell all electricity generated by the Facility, in excess of any energy consumed by the Facility, to the Company for the entire term of this Agreement. Seller shall not sell such electricity to third parties or attempt to renegotiate the terms and conditions of this Agreement during the FIT Term.

(d) Seller shall render an invoice to the Company for energy purchased, and the Company shall pay to Seller the amount stated in such invoice, including any State of Hawaii general excise tax or use tax thereon, no later than 20 days after the date of such invoice,

3. Purchase of Energy by the Company from the Seller: Purchases of energy by the Company from the Seller shall be governed by the applicable Schedule FIT rate schedule and the Company's rules filed with the Hawaii Public Utilities Commission ("Commission") and not by this Agreement.

4. Interconnection: A Seller that applies, pursuant to Schedule FIT, to interconnect a Facility for operation in parallel with Company's System shall execute the FIT Standard Interconnection Agreement attached as Appendix B to this Agreement and shall comply at all times with the provisions of Appendix 1 to Rule 14 H (Distributed Generating Facility Interconnection Standards and Technical Requirements) prior to operating the Facility in parallel with the Company's System. Nothing in this provision shall affect the Company's right to refuse or discontinue service as provided in the Company's Tariff Rules 7.A.1 and 2. An application by a Seller to interconnect a Facility for operation in parallel with the Company's electric system under the Schedule FIT will be processed in accordance with the procedures for queuing approved by the Commission.

5. Personnel and System Safety: Notwithstanding any other provisions of this Agreement or the Appendices thereto, if at any time the Company determines that the continued operation of the Seller's Facility may endanger any person or property, the Company's electric system or have an adverse effect on the safety of the Company's other customers, the Company shall have the right to disconnect Seller's Facility from the Company's electric system. The Seller's Facility shall remain disconnected until such time as the Company is satisfied that the endangering condition(s) has been corrected.

6. Metering; Instrumentation: The Company will supply, own, and maintain all necessary meters and associated equipment utilized for billing and energy purchase. The meters will be tested and read in accordance with the Commission's and Company's rules. The Seller shall supply, at no expense to the Company, a suitable location for meters and associated equipment used for billing and energy purchase, in accordance with the Company's tariff.

Deleted: (b)

Deleted: agrees to sell

Deleted: above any electricity produced for self consumption

Deleted: c

Deleted: A statemem for energy purchased will be rendered and payment will be made for such energy in accordance with the applicable Company provisions and processes which the Company will advise the Seller of at the time of execution of this Agreement

Deleted: (d) . This Agreement shall not be construed to constitute a "take or pay" contract and the Company shall have no obligation to pay for any energy that has not actually been generated by the Facility, measured by the Company's installed metering, and delivered to the Company at the Point of Interconnection as designated herein. The Company will not reimburse the Seller for any taxes or fees imposed on the Seller including, but not limited to, State of Hawaii general excise tax ¶

Formatted: Indent: Left: 0", First line: 0"

Deleted: Sale

Deleted: to

Deleted: Sales

Deleted: to

Deleted: and Parallel Operation

Deleted: s seeking to

Deleted: and operate

Deleted: requests

Deleted: and operate a Facility

Deleted: Standard Interconnection Agreement

Deleted: and interconnection

Deleted: Without limiting the foregoing, Seller shall install, operate and maintain its equipment and facilities and perform all obligations required to be performed under this Agreement in accordance with good engineering and operating practices in the electric industry and applicable laws, rules, orders and tariffs ¶

¶

Deleted: , and the Company shall not be obligated to accept or pay for any energy from the Seller during such period

The Seller will supply instrumentation for measuring the amount of hydrological flow, solar radiation, wind velocity or baseline energy source, as the case may be, at or immediately near the point of contact with the Facility. Such instrumentation shall be owned and maintained by the Seller or a third party engaged by the Seller. The Company may have such instrumentation tested at any time by a Commission-approved third-party testing authority to verify the accuracy of such measurements within a maximum range of error of ± ___%. If the measurements are within the maximum range of error, the Company shall pay the costs of such testing. If such measurements exceed the maximum range of error, the Seller shall pay the costs of testing and refund to the Company any overpayments to the extent of any mis-measurements accruing during the interval between the current testing and the next most recent testing of the instrumentation.

7. Term: Except as otherwise provided herein, this Agreement shall become effective upon execution by the two parties ("Execution Date") and shall remain in effect for a term of twenty years ("FIT Term").

During a period commencing 6 months prior to the conclusion of the FIT Term and ending upon the conclusion of such FIT Term, the Seller shall be obliged to offer to sell electricity generated by the Facility to the Company on an annual basis at the feed-in tariff rate of compensation (in cents per kilowatt-hour) set forth in the Schedule FIT as in effect upon the conclusion of such FIT Term. If the Company does not accept such offer during such period, the Seller shall have the right to sell such electricity at any rate of compensation to any person, or to sell such electricity at the PURPA avoided-cost rate to the Company if the Seller is eligible to do so.

8. Termination for Cause: (a) The Company shall have the right to terminate this Agreement if, during the FIT Term:

(1) The Seller, by act or omission, materially breaches or defaults on any material covenant, condition or other provision of this Agreement, and fails to cure such breach or default within thirty (30) days after written notice of such breach or default from the Company, unless (i) such breach or default is due to Force Majeure, provided, however, that if the Seller does not cure such breach or default resulting from Force Majeure within 180 days of such notice, the Company may terminate this Agreement; or, (ii) such breach or default cannot be cured within thirty (30) days and the Seller is making diligent efforts to cure such breach or default, provided, however, that if such breach or default is not cured within 180 days of such notice, the Company may terminate this Agreement; or

(2) The Seller abandons the construction or operation of the Facility,

(b) Before terminating this Agreement for cause, the Company shall give written notice to the Seller of the existence of one or more of the above conditions allowing termination for cause and of the Company's intention to exercise its termination rights if the condition is not corrected to the satisfaction of Company. Upon receipt of the Company's notice of intent to terminate for cause, the Seller shall have thirty (30) days in which to correct the noted condition to the satisfaction of the Company.

Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Indent: First line: 0.5"
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt
Formatted: Font: 12 pt

Deleted: At the conclusion of the FIT Term, Seller must offer to sell its electricity to the Company on an annual basis at the modified FIT rate to be determined and approved by the Commission. The Company does not have an obligation to purchase electricity from Seller after the FIT Term, however, if the Company does exercise its option to purchase it will notify Seller no less than six months prior to the conclusion of the FIT Term.¶
¶

Deleted: If any of the following conditions occur during the FIT Term, then the Company shall have the right to terminate this Agreement

Deleted: The Seller fails to operate, maintain, or repair the Facility in accordance with Good Engineering and Operating Practices within thirty (30) days of written notice of such breach from the Company, and subject to the same extension of cure periods as set forth herein.¶
(3) The Seller makes a general assignment for the benefit of its creditors.¶
(4) The Seller files bankruptcy, has a petition for involuntary bankruptcy filed against it, or has a receiver appointed because of insolvency;¶
(5) The Seller's dissolution or liquidation.¶
(6) The Seller's actual fraud, waste, tampering with Company owned facilities, theft of Company property or other material intentional misrepresentation or misconduct in ... [1]

Deleted: 's abandonment of

Deleted: , or¶
(8) The Seller's failure to maintain required interconnection equipment

(c) The Seller may terminate the Agreement if the Company, by act or omission, materially breaches or defaults on any material covenant, condition or other provision of this Agreement, and fails to cure such breach or default within thirty (30) days after written notice of such breach or default from the Seller, unless (i) such breach or default is due to Force Majeure, provided, however, that if the Company does not cure such breach or default within 180 days of such notice, the Seller may terminate this Agreement; or, (ii) such breach or default cannot be cured within thirty (30) days and the Company is making diligent efforts to cure such breach or default, provided, however, that if such breach or default is not cured within 180 days of such notice, the Seller may terminate this Agreement. A Tier 2 Seller shall be obliged to provide at least 3 months' advance to the Company and the Commission prior to ceasing operation of the Facility for reasons other than Force Majeure events. Any such Seller that fails to provide such notice shall be subject to penalties to be determined and approved by the Commission.

9. Indemnification: (a) The Seller shall indemnify, defend and hold harmless the Company and its directors, officers, employees and agents (including but not limited to affiliates and contractors and their employees) from and against any and all liabilities, damages, losses, penalties, claims, demands, suits, costs, expenses (including attorneys' fees), and proceedings of every kind, including those for damage to the property or real property of any person or entity (including the Seller) and/or for injury to or death of any person (including the Seller's employees and agents)(collectively "Injury or Damage"), directly or indirectly arising out of or attributable to or in any manner connected with the engineering, design, location, construction, maintenance, interconnection, or parallel operation of the Seller's Facility with the Company's System, and/or directly or indirectly arising out of or attributable to or in any manner connected with the breach of any of Seller's representations or warranties herein, except to the extent that such Injury or Damage is attributable to the gross negligence or willful misconduct of the Company.

(b) The Company shall indemnify, defend and hold harmless the Seller and its directors, officers, employees and agents (including but not limited to affiliates and contractors and their employees) from and against any and all liabilities, damages, losses, penalties, claims, demands, suits, costs, expenses (including attorneys' fees), and proceedings of every kind, including those for damage to the property or real property of any person or entity (including the Company) and/or for injury to or death of any person (including the Company's employees and agents)(collectively "Injury or Damage"), directly or indirectly arising out of or attributable to or in any manner connected with the engineering, design, location, construction, maintenance, interconnection, or parallel operation of the Company's System with the Seller's Facility, and/or directly or indirectly arising out of or attributable to or in any manner connected with the breach of any of the Company's representations or warranties herein, except to the extent that such Injury or Damage is attributable to the gross negligence or willful misconduct of the Seller.

(c) Nothing in this Agreement shall create any duty to, any standard of care with reference to, or any liability to any person not a party to it.

10. Insurance: The Seller shall, at its own expense and during the term of the Agreement and any other time that the Seller's facility is interconnected with the Company's System, maintain in effect with a responsible insurance company authorized to do insurance business in Hawaii, the following insurance

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Deleted: Additionally, Tier 2 Sellers must provide a minimum of three (3) months notice to Company prior to ceasing operations for reasons other than Force Majeure events or be subject to penalties t

Deleted: 9. . Facility Development Milestones Seller agrees to develop the Facility in an expeditious manner to enable the Company to achieve its renewable energy and Feed-in Tariff program objectives. To assure reasonable performance by the Seller in developing the Facility in a timely manner, the Seller shall pay a reservation fee to the Company in an amount of $25/kW, based on the Design Capacity of the Generating Facility. In addition, the Seller will provide appropriate security deposits, in amounts to be determined and approved by the Commission, in order to proceed through defined stages in the project development process Following the Commercial Operation Date, the reservation fee and security deposits will be returned to the Seller with the initial energy payment made by the Company ¶ ¶ In the event the Commercial Operation Date is not reached within the time period established by the Commission, the reservation fee and security deposits will be forfeited by the Seller to the Company and the Company may terminate this Agreement Before terminating the Agreement, the Company shall give written notice to the Seller of the forfeiture of the reservation fee and security deposits and the Company's intention to exercise its termination rights under this Section Upon receipt of the Company's notice of intent to terminate, the Seller shall have fifteen (15) days to submit a written request for an extension to the date the Facility must be placed into Commercial Operation. In ... [2]

Deleted: including land restoration costs for which the Seller is responsible, if any,

Deleted: (d) Any fines or other penalties incurred by Seller for noncompliance with any Laws shall not be reimbursed by Company but shall be the sole responsibility of Seller. Seller shall indemnify, defend and hold h ... [3]

Deleted: 1

that will protect the Seller and the Company with respect to the Seller's Facility, the Seller's operations, and the Seller's interconnection with the Company's System:

Tier 1: A commercial general liability policy covering bodily injury and property damage combined single limit of at least FIVE HUNDRED THOUSAND DOLLARS ($500,000) for any occurrence.

Tier 2: A commercial general liability policy covering bodily injury and property damage combined single limit of at least TWO MILLION DOLLARS ($2,000,000) for any occurrence.

The Seller has responsibility to determine if higher limits are desired and purchased. Said insurance shall name the Company as an additional insured, shall include contractual liability coverage for written contracts and agreements including this Agreement, and shall be non-cancelable and non-alterable without thirty (30) days' prior written notice to the Company. "Claims made" policies are not acceptable. The insurance required hereunder shall provide that it is primary with respect to the Seller and the Company. The Seller shall provide evidence of such insurance, including insurer's acknowledgement that coverage applies with respect to this Agreement, by providing certificates of insurance to the Company within 30 days of any change. Initially, certificates of insurance must be provided to the Company prior to executing this Agreement and any parallel interconnection. The Seller's indemnity and other obligations shall not be limited by the foregoing insurance requirements. Any deductible shall be the responsibility of the Seller.

Deleted: The adequacy of the coverage afforded by the required insurance shall be subject to review by the Company from time to time, and if it appears in such review that risk exposures require an increase in the coverages and/or limits of this insurance, the Seller shall make such increase to that extent and any increased costs shall be borne by the Seller.

11. Assignment: This Agreement may not be assigned by either the Company or the Seller absent the written consent of the other party. Such consent shall not be unreasonably withheld.

Deleted: 2

12. Hawaii Public Utilities Commission: This Agreement shall, at all times, be subject to such changes or modifications by the Commission as said Commission, may, from time to time, direct in the exercise of its jurisdiction.

Deleted: 3

13. Force Majeure: (a) If either party shall be wholly or partially prevented from performing any of its obligations under this Agreement by reason of or through strikes, lightning, rain, earthquake, wind, riots, fire, flood, invasion, insurrection, lava flow or volcanic activity, tidal wave, civil commotion, the order of any court, judge or civil authority, war, any act of God or the public enemy, or any other similar or dissimilar cause reasonably beyond its exclusive control and not attributable to its neglect, then and in any such event, either party shall be excused from whatever performance is prevented by such event to the extent so prevented, and either party shall not be liable for any damage or loss resulting therefrom.

Formatted: Tabs: 0.5", Left

Formatted: Bullets and Numbering

Deleted: ¶
¶

(b) Force Majeure does not include:

(i) any acts or omissions of any third party, including, without limitation, any vendor, materialman, customer, or supplier of Seller, unless such acts or omissions are themselves excused by reason of Force Majeure;

(ii) any full or partial curtailment in the electric output of the Seller's Facility that is caused by or arises from a mechanical or equipment breakdown or other mishap or events or conditions attributable to normal wear and tear or flaws, unless such mishap is caused by Force Majeure;

(iii) Seller's inability to obtain Permits or approvals of any type for the construction, operation, or maintenance of Seller's Facility;

(iv) litigation or administrative or judicial action pertaining to this Agreement, the Site, the Facility, the acquisition, maintenance or renewal of financing or any Permits, or the design, construction, maintenance or operation of the Facility or the Company's System;

(v) any full or partial curtailment in the delivery of the output of the Seller or of the ability of the Company to accept output from the Seller which is caused by any third party including, without limitation, any vendor or supplier of the Seller or the Company, except to the extent due to Force Majeure.

14. Warranties: (a) The Seller represents and warrants as follows: Formatted: Bullets and Numbering

(i) The Seller has all necessary right, power and authority to execute, deliver and perform this Agreement.

(ii) The execution, delivery and performance of this Agreement by the Seller will not result in a willful violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which the Seller is a party or by which it is bound.

(b) The Company represents and warrants as follows:

(i) The Company has all necessary right, power and authority to execute, deliver and perform this Agreement.

(ii) The execution, delivery and performance of this Agreement by the Company will not result in a willful violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which the Company is a party or by which it is bound.

15. Dispute Resolution: Formatted: Bullets and Numbering

Before submitting any claims, controversies or disputes ("Dispute(s)") under this Agreement to the Dispute Resolution Procedure set forth herein , the presidents, vice presidents, or authorized delegates from both Seller and Company having full authority to settle the Dispute(s), shall personally meet in Hawaii and attempt in good faith to resolve the Dispute(s) (the "Management Meeting").

(a) Arbitration. If any Disputes remain unresolved after such Management Meeting concludes, the parties agree to submit any such Dispute(s) to binding arbitration in Honolulu, Hawaii pursuant to the

administration by, and in accordance with the Arbitration Rules, Procedures, and Protocols of, Dispute Prevention & Resolution, Inc. then in effect ("Arbitration Rules"). Capitalized and otherwise undefined terms in this Section 15 shall have the meanings set forth in the Arbitration Rules. The award of the arbitrator(s) is binding upon the parties and judgment upon the award rendered may be entered in any court of competent jurisdiction. In the event that Dispute Prevention & Resolution, Inc. or its successor is unable or unwilling to administer the arbitration at the time the dispute is submitted for binding arbitration, the parties agree to submit any such Dispute(s) to binding arbitration in Honolulu, Hawaii pursuant to the administration by, and in according with the Commercial Arbitration Rules of the American Arbitration Association. All references herein to the "Arbitration Rules" shall then be deemed to be references to the Commercial Arbitration Rules or the provisions thereof most similar to the referenced provision of the Arbitration Rules.

Deleted: Article

Deleted: 6

(b) Procedures for Appointing Arbitrator(s). The parties hereby agree that arbitrator(s) shall be appointed according to the following procedure, notwithstanding any contrary or inconsistent provision of the Arbitration Rules.

(1) Single Arbitrator. Within 20 calendar days of the initiation of arbitration and the receipt by Respondent of the Demand for Arbitration, the parties shall attempt to agree on a single arbitrator.

(2) Three-Arbitrator Panel. Should the parties fail to agree on a single arbitrator within that 20-calendar day period, each party may appoint one arbitrator within 14 calendar days thereafter pursuant to the Arbitration Rules. If any party does not appoint an arbitrator within that 14-calendar day period, Dispute Prevention & Resolution, Inc. shall appoint one or both of the arbitrator(s), as appropriate. Within 20 calendar days of the appointment of the second arbitrator, the two appointed arbitrators shall attempt to agree upon the appointment of a third arbitrator. If the two appointed arbitrators fail to agree upon the appointment of the third arbitrator within this 20-calendar day period, Dispute Prevention & Resolution, Inc. shall appoint the third arbitrator.

(c) Authority of the Arbitrator(s)s. Notwithstanding anything herein or in the Arbitration Rules to the contrary, all documents shall be produced and all depositions shall be taken in Honolulu, Hawaii, and that any deposition fees and travel expenses of all hearing witnesses and deponents named by, affiliated with or formerly affiliated with a party or any of its affiliates, or its affiliate's affiliate, shall be borne by that party. The parties warrant they shall cause such documents, witnesses and deponents to appear in Honolulu, Hawaii notwithstanding any objection as to the jurisdiction of the arbitration panel, the location of the arbitration, or lack of privity with a party or that the witness is not a party to the RAC or to the arbitration, and the arbitrator(s) shall have no power to order to the contrary. Notwithstanding anything herein or in the Arbitration Rules to the contrary, the authority of the arbitrator(s) in rendering the award is limited to the interpretation and/or application of the terms of this Agreement and to ordering any remedy allowed by this Agreement. The arbitrator(s) shall have no power to change any term or condition of this Agreement, deprive any party of a remedy expressly provided hereunder, or provide any right or remedy that has been excluded hereunder. Notwithstanding anything herein or in the Arbitration Rules to the contrary, any party who contends that the award was in excess of the authority of the arbitrator(s) as set forth herein may seek judicial relief in the Circuit Court of the State of

of Hawaii for the circuit in which the arbitration hearing was held, provided that such judicial proceeding is initiated within 30 calendar days of the award and not otherwise.

(d) No Punitive or Exemplary Damages. Notwithstanding anything herein or in the Arbitration Rules to the contrary, and pursuant to Hawaii Revised Statutes § 658A-4, the parties hereby waive any and all claims for punitive or exemplary damages with respect to any and all Dispute(s).

17. Regulatory Compliance:

Tier 2 Sellers must file in Docket No. 2008-0273, subject to protective order, the following information for each FIT project, within thirty (30) days of the project entering service and annually thereafter.

(a) The cost of project design, permitting, and construction costs, including labor and materials costs;
(b) Financing or capital cost;
(c) Land cost or actual cost of site acquisition;
(d) Interconnection and metering costs incurred by the project developer;
(e) Other project costs incurred in developing and constructing the project;
(f) Tax credits, rebates, incentives received and applied to the project development cost;
(g) Maintenance and operation labor and non-labor costs;
(h) Fuel supply costs (for biomass and biogas projects);
(i) Monthly land or site leases; and
(j) Other operations and maintenance costs.

Additionally, Tier 2 Sellers must file an annual report with the Commission in Docket No. 2008-0273, no later than January 31, of each year, which contains the following information: (1) annual electricity production in kWh; and (2) annual operating costs, including operations and maintenance costs, lease expenses, insurance, and property taxes.

Deleted:

17. Miscellaneous:

Formatted: Left

Deleted: ¶
¶

Formatted: Bullets and Numbering

(a) Amendments. Any amendment or modification of this Agreement or any part hereof shall not be valid unless in writing and signed by the parties. Any waiver hereunder shall not be valid unless in writing and signed by the party against whom waiver is asserted.

(b) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, legal representatives, and permitted assigns.

(c) Notices. Any written notice provided hereunder shall be delivered personally or sent by registered or certified first class mail, with postage prepaid, to the other party at the following address:

Company:

1) By Mail:

_____
_____
_____
Attn: _____

2) Delivered:

_____
_____
_____
Attn: _____

3) By facsimile:

_____
(808) ___-_____

Seller:

i. By Mail:

_____
_____
_____
Attn: _____

ii. Delivered:

_____
_____
_____
Attn: _____

iii. By facsimile:

_____
(808) ___-_____

Notice sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day after the date of mailing, whichever is earlier. Any party hereto may

change its address for written notice by giving written notice of such change to the other party hereto.

Any notice delivered by facsimile must be followed by personal or mail delivery and the effective date of such notice shall be the date of personal delivery or, if by mail, the earlier of the actual date of delivery or the expiration of the fifth day after the date of mailing.

(d) Effect of Section and Appendix Headings. The headings or titles of the several sections and appendices hereof are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(e) Non-Waiver. No delay or forbearance of the Company or the Seller in the exercise of any remedy or right will constitute a waiver thereof, and the exercise or partial exercise of a remedy or right shall not preclude further exercise of the same or any other remedy or right.

(f) Relationship of the Parties. Nothing in this Agreement shall be deemed to constitute either party hereto as partner, agent or representative of the other party or to create any fiduciary relationship between the parties. The Seller does not hereby dedicate any part of the Seller's Facility to serve the Company, the Company's customers or the public.

(g) Entire Agreement. This Agreement, including the Definitions set forth in Appendix A, constitutes the entire understanding and agreement between the parties.

(h) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Hawaii. The venue for a civil action related to this Agreement shall be the judicial circuit in which the Seller's Facility is located.

(i) Limitations. Nothing in this Agreement shall limit the Company's ability to exercise its rights as specified in the Company's Tariff as filed with the Commission, or as specified in General Order No. 7 of the Commission's Standards for Electric Utility Service in the State of Hawaii, as either may be amended from time to time.

(j) Further Assurances. Each of the parties shall from time to time and at all times do such further acts and deliver all such further documents and assurances as shall be reasonably necessary fully to perform and carry out this Agreement.

(k) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same agreement.

(l) Definitions. Terms used in this Agreement not otherwise defined in the context in which they first appear are defined in Appendix A to this Agreement.

(m) Severability. If any term or provision of this Agreement, or the application thereof to any person, entity or circumstances is to any extent invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

(n) Settlement of Disputes. Except as otherwise expressly provided, any dispute or difference arising out of this Agreement or concerning the performance or the non-performance by either party of its obligations under this Agreement shall be determined in accordance with the dispute resolution procedures set forth in Section 15 of this Agreement.

Deleted: 6

(o) Environmental Credits. To the extent not prohibited by law, any Environmental Credit shall be the property of the Company; provided, however, that such Environmental Credits shall be to the benefit of the Company's ratepayers in that the value must be credited "above the line". Seller shall use all reasonable efforts to ensure such Environmental Credits are vested in the Company, and shall execute all documents, including, but not limited to, documents transferring such Environmental Credits, without further compensation, provided, however, that the Company agrees to pay for reasonable costs associated with such efforts and/or documentation.

(p) Appendices. Each Appendix is an essential and necessary part of this Agreement.

(q) Patents. Seller agrees that in fulfilling its responsibilities under this Agreement, it will not use any process, program, design, device or material that infringes on any United States patent. Seller agrees to indemnify, defend and hold harmless the Company from and against all losses, damages, claims, fees and costs, including but not limited to reasonable attorneys' fees and costs, arising from or incidental to any suit or proceeding brought against the Company for patent infringement arising out of Seller's performance under this Agreement.

(r) Notice of Revisions of Schedule FIT. The Company shall serve the Seller notice of any proposed revisions to its Schedule FIT that it files with the Commission within five (5) business days after the proposed revision is filed with the Commission.

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the latter of the two dates set forth below.

SELLER		COMPANY	
By:	_____	By:	_____
Name:	_____	Name:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____

By: _____

Name: _____

Title: _____

Date: _____

APPENDIX A

DEFINITIONS

Baseline Energy: energy generated or produced from wind, sun, falling water, biogas (including landfill and sewage-based digester gas), geothermal, ocean water, currents, and waves, including ocean thermal energy conversion, biomass (including biomass crops, agricultural and animal residues and wastes, and municipal solid waste and other solid waste), and hydrogen produced from renewable resources, other than Renewable Energy generated by a Photovoltaic Generating Facility, a Concentrating Solar Power Facility, an Onshore Wind Generating Facility or an In-line Hydropower Generating Facility.

Baseline Generating Facility: A Renewable Energy Generating Facility that generates electricity from Baseline Energy.

Commercial Operation Date: The date on which Seller's Facility first achieves Commercial Operations.

Company's System: The electric system owned and operated by the Company consisting of power plants, transmission and distribution lines, and related equipment for the production and delivery of electric power to the public.

Concentrating Solar Power Facility: A Renewable Energy Generating Facility that generates electricity by concentrating solar radiation to heat a working fluid that drives a generator.

Day: Means a calendar day.

Design Capacity: The installed maximum nameplate alternating-current electricity generating capacity, in kilowatts, of a Renewable Energy Generating Facility.

Environmental Credits: Any certificate, credit, allowance, green tag, or other transferable indicia or environmental attribute, verifying the generation of a particular quantity of energy from a Renewable Energy Source, indicating the generation of a specific quantity of Renewable Energy by a Renewable Energy Generating Facility, or indicating a Renewable Energy Generator's ownership of any environmental attribute associated with such generation. Such Environmental Credits shall include, but not be limited to, emissions credits, including credits triggered because such Facility does not produce carbon dioxide when generating electric energy, or any renewable energy credit, but in all cases shall not mean tax credits.

Execution Date: Shall have the meaning set forth in Section 7 of this Agreement.

Facility: Shall have the same meaning as Renewable Energy Generating Facility.

FIT Term: Shall have the meaning set forth in Section 7 of this Agreement.

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Deleted: (to include any non-utility owned facilities)

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Deleted: ¶

Formatted: Font: 12 pt

Deleted: - The capacity of the eligible renewable generator as established by the manufacturer that is available for use either at-site to meet customer load or exported to the grid for sale to Company under the Schedule FIT. Company will use either the nameplate rating of the eligible renewable generator if no inverter is used, or the inverter rating if the generator is inverter based.¶

Formatted: Font: 12 pt

Deleted: Any environmental credit, offset, or other benefit allocated, assigned or otherwise awarded by any governmental or international agency to the Company or the Seller based in whole or in part on the fact that the Seller's Facility is a non-fossil fuel facility.

Deleted: f

Deleted: Seller's renewable energy facility that is the subject of this Agreement and is classified as an eligible resource under Hawaii's Renewable Portfolio Standards Statute (codified as Hawaii Revised Statutes (HRS) 269-91 through 269-95 ("RPS Law") and the provisions of the Commission's Decision and Order issued September 25, 2009 in Docket No. 2008-0273.¶

Deleted: ¶

Force Majeure: Shall have the meaning set forth in Section 14 of this Agreement.

In-Line Hydropower: Hydroelectric generation that utilizes energy from a water pipeline system that is designed primarily to serve another functional purpose where a section of pipeline is replaced with a turbine-generator section.

In-Line Hydropower Generating Facility: A Renewable Energy Generating Facility that generates electricity from In-Line Hydropower.

Onshore Wind Generating Facility: Any Wind Generating Facility that is not located in an ocean water depth of 20 meters or more.

Photovoltaic Generating Facility: A Renewable Energy Generating Facility that uses photovoltaic material to generate electricity from solar radiation.

Permits: All permits, licenses, approvals, certificates, entitlements and other authorizations issued by Governmental Authorities required for the construction, ownership and operation of the Facility, and all amendments, modifications, supplements, general conditions and addenda thereto.

Point of Interconnection: The point of delivery of energy supplied by Seller to Company where Seller's Facility interconnects with Company's System.

PUC (Public Utilities Commission): The Public Utilities Commission of the State of Hawaii.

Renewable Energy: Electricity generated by a Renewable Energy Generating Facility from a Renewable Energy Source.

Renewable Energy Generating Facility: Any identifiable facility, plant, installation, project, equipment, apparatus, or the like, located in the State of Hawaii, placed in service after the effective date of this Schedule, and that generates Renewable Energy from a Renewable Energy Source.

Renewable Energy Generator: any person that owns, controls, operates, manages, or uses a Renewable Energy Generating Facility to generate Renewable Energy from a Renewable Energy Source.

Renewable Energy Source: Any of the following sources of energy: (a) In-Line Hydropower; (b) solar radiation; (c) wind; or (d) Baseline Energy.

Site: The parcel of real property on which the Facility will be constructed and located, including any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of the Facility.

Term: The Term of this Contract is as defined in Section 7 of this Agreement.

Formatted: Line spacing: single

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Deleted: ¶

Deleted: ¶
Generating Facility. Shall have the same meaning as "Facility" ¶
¶
Good Engineering and Operating Practices The practices, methods and acts engaged in or approved by a significant portion of the electric utility industry for similarly situated U S facilities that at a particular time, in the exercise of reasonable judgment in light of the facts known or that reasonably should be known at the time a decision is made, would be expected to accomplish the desired result in a manner consistent with law, regulation, reliability, safety, environmental protection, economy and expedition With respect to the Seller's Facility, Good Engineering and Operating Practices include, but are not limited to, taking reasonable steps to ensure that ¶
¶
Adequate materials, resources and[... [4]

Deleted: and/or Capacity

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Formatted: Font: 12 pt

Deleted: ¶

Deleted: Renewable Portfolio St ... [5]

Third Party: Any person or entity other than the Company or the Seller, and includes, but is not limited to, any subsidiary or affiliate of the Seller.

Wind Generating Facility: A Renewable Energy Generating Facility that generates electricity from wind.

Formatted: Font: 12 pt

APPENDIX B

SCHEDULE FIT STANDARD INTERCONNECTION AGREEMENT

THIS AGREEMENT ("Agreement") is made this _____ day of _____, 20__, by and between _____, hereinafter called the Company, and _____, hereinafter called the Seller.

WHEREAS, the Seller owns, operates, controls, manages and/or uses a renewable energy generating facility ("Facility"), as identified in Exhibit A and defined in Section 3 of this Agreement; and

Deleted: is the owner and operator of

WHEREAS, Seller desires to interconnect the Facility for operation in parallel with the Company's system upon the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and the respective promises herein, the Company and the Seller hereby agree as follows:

1. Scope Of Agreement: This Agreement relates solely to the conditions under which the Company and the Seller agree that the Facility may be interconnected to the Company's system for operation in parallel with the Company's system.

Deleted: and operated

2. Parallel Operation: The Facility may interconnect and operate in parallel with the Company's system in accordance with the terms and conditions of this Agreement.

3. Facility:

(a) For the purposes of this Agreement, the "Facility" is defined as the facility, plant, installation, project, equipment, apparatus, or the like, owned, operated, controlled, managed and/or used by the Seller, that generates Renewable Energy from a Renewable Energy Source and that is to be interconnected with the Company's system for operation in parallel with the Company's system.

Deleted: the equipment and devices, and associated appurtenances, owned by the Seller, which produce electric energy for use by the Seller and are to be

Deleted: and operated i

(b) The Seller shall furnish, install, operate and maintain, at its cost, the interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) identified in Exhibit B hereto ("Facility Owned By The Seller").

(c) The point of interconnection is shown on the single-line diagram and three-line diagram (provided by the Seller and reviewed by the Company) which are attached to Exhibit B (provided that the three-line diagram is not required if the Facility's capacity is less than 30 kW).

(d) The Seller agrees to test the Facility, to maintain operating records, and to follow such operating procedures, as may be specified by the Company to protect the Company's system from damages resulting from the parallel operation of the Facility, including such testing, records and operating procedures as more fully described in Exhibit B attached hereto and made a part hereof.

(e) The Company may inspect the Facility, as more fully described in Exhibit B.

4. Interconnection Facilities Owned by the Company: The Company agrees to furnish, install, operate and maintain such interconnection facilities on its side of the point of interconnection with the Facility as required for parallel operation with the Facility and as more fully described in Exhibit C attached hereto and made a part hereof ("Interconnection Facilities Owned By The Company"). All such interconnection facilities shall be the property of the Company. Where portions of the Company Interconnection Facilities are located on the Seller's premises, the Seller shall provide, at no expense to the Company, a suitable location for and access to all such equipment. If a 120/240 Volt power source or sources are required, the Seller shall provide these at no expense to the Company.

5. Seller Payments: The Seller agrees to pay to the Company a reasonable non-refundable contribution for the Company's investment in the interconnection facilities described in Exhibit C, subject to the terms and conditions included in Exhibit C. The interconnection costs will not include the cost of any technical screening of the impact of the Facility on the Company's system, any interconnection requirements study costs, any system and feeder studies and technology verification studies performed by the Company, any project risk assessment costs including costs associated with curtailment studies, any substation specific to the Facility, any SCADA, control system and/or curtailment system specific to the Facility, and any utility system costs and upgrades other than line extension and transformation equipment specific to the Facility, and equipment at the customer site specific to the Facility.

6. Commencement of Producing Energy in Parallel: After this Agreement is executed, and the Facility Owned By The Seller and the Interconnection Facilities Owned By The Company are completed, the Facility may be operated in parallel with the Company's system, provided that the Seller has satisfied the conditions in Section 3 of Exhibit B of this Agreement.

7. Disconnection of Facility for Utility Reasons:

(a) Upon providing reasonable notice (generally not to be less than ten (10) business days for scheduled work), the Company may require the Seller to temporarily disconnect the Facility from the Company's system when necessary for the Company to construct, install, maintain, repair, replace, remove, investigate, test or inspect any of its equipment or other Sellers' equipment or any part of its system. If the Company determines that such disconnection is necessary because of an unexpected system emergency, forced outage, operating conditions on its systems, or compliance with good engineering practices as determined by the Company, the Company will immediately attempt to notify the Seller

Deleted: ¶
¶
(a)

Deleted: , and to pay for other reasonable interconnection costs

Deleted: initial

Deleted: but will include the actual cost (or such lesser amount as the Company may specify to facilitate the processing of interconnection requests for similarly situated facilities) of additional technical study for the Facility, if additional technical study is conducted ¶
¶
(b) . [FOR SELLER THAT IS AN AGENCY OF THE DEPARTMENT OF DEFENSE (the "DOD")]¶
¶
The DOD shall pay for all costs associated with the Company's investment in the interconnection facilities and other reasonable interconnection costs by means of a modification to the existing electric service contract. The contract modification shall be executed prior to effectuating this Agreement.¶
¶

or the Seller's designated representatives in person, by telephone, by electronic mail, or by facsimile, of the need to disconnect the Facility. Unless the emergency condition requires immediate disconnection as determined by the Company, the Company shall allow sufficient time for the Seller to manually disconnect the Facility.

(b) The Facility shall not energize a de-energized utility line under any circumstances, but may operate its Facility isolated from the utility system with an open tie point in accordance with Section 4.i of Appendix I to HECO Tariff Rule 14H.

(c) Following the completion of work and/or rectification of the emergency conditions by the Company, the Company shall reset the Seller's service breaker, if open, as soon as practicable and shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the Company and the Seller, written documentation of the occurrence and nature of the Company's work and/or emergency condition, and of the disconnection of the Facility.

(d) The Company shall take reasonable steps to minimize the number and duration of such disconnections.

(e) The disconnection of the Facility under this Section 8 shall not be subject to standby service charges under the Company's Schedule SS Standby Service tariff.

(f) The Company may disconnect the Seller from the Company's system for failure by the Seller to disconnect the Facility under this Section 7, until such time that the Company's work or the system condition has been corrected and the normal system condition has been restored.

8. Personnel and System Safety: Notwithstanding any other provisions of this Agreement, the Company may disconnect the Facility from the Company's system, without prior notice to the Seller, (a) to eliminate conditions that constitute a potential hazard to the Company's personnel or the general public; (b) if pre-emergency or emergency conditions exist on the Company system; (c) if a hazardous condition relating to the Facility is observed by the Company's inspection; (d) if the Facility interferes with the Company's equipment or equipment belonging to other customers of the Company (including non-utility generating equipment); or (e) if the Seller of the Facility has tampered with any protective device. The Facility shall remain disconnected until such time as the Company is satisfied that the endangering condition(s) as listed above has been corrected, and the Company shall not be obligated to allow parallel operation of the Facility during such period. If the Company disconnects the Facility under this Section 8, it shall as soon as practicable notify the Seller in person, by telephone, by electronic mail, or by facsimile and provide the reason(s) why the Facility was disconnected from the Company's system. Following the rectification of the endangering conditions, the Company shall provide, within fifteen (15) business days or such other period as is mutually agreed upon in writing by the Company and the Seller, written documentation of the occurrence of the endangering conditions, and of the disconnection of the Facility. The disconnection of a Seller's

Deleted: -

generating facility shall not be subject to standby service charges provided that the disconnection was caused by the utility or the utility's equipment. The procedure for determining the applicability of standby charges to a disconnection event shall be specified in the Company's Schedule SS Standby Service tariff.

9. Prevention of Interference: The Seller shall not operate equipment that superimposes a voltage or current upon the Company's system that interferes with the Company's operations, service to the Company's customers, or the Company's communication facilities. Such interference shall include, but not be limited to, overcurrent, voltage imbalance, and abnormal waveforms. If such interference occurs, the Seller must diligently pursue and take corrective action at its own expense after being given notice and reasonable time to do so by the Company. If the Seller does not take timely corrective action, or continues to operate the equipment causing interference without restriction or limit, the Company may disconnect the Seller's equipment from the Company's system.

10. Location of Metering: Where Company-owned metering is located on the Seller's premises, the Seller shall provide, at no expense to the Company, a suitable location for and access to all such metering.

11. Design Reviews and Inspections: The Company's review and authorization to allow the Facility to interconnect and operate in parallel with the Company's system shall not be construed as confirming or endorsing the Facility's design or as warranting the Facility's safety, durability or reliability. The Company shall not, by reason of such review or lack of review, be responsible for the equipment, including but not limited to, the safety, strength, adequacy, durability, reliability, performance, or capacity of such equipment.

12. Permits, Approvals, and Licenses: The Seller shall obtain, at its expense, any and all authorizations, approvals, permits, and licenses required for the construction and operation of the Facility and the interconnection with the Company's system, including but not limited to environmental permits, building permits, rights-of-way, or easements.

13. Term: This Agreement shall become effective when executed by the Seller and the Company and shall continue in effect for the duration of the FIT Term as defined in Seller's Schedule FIT Agreement.

14. Termination: The provisions for termination of this Agreement shall be the same as those set forth in Seller's Schedule FIT Agreement.

15. Disconnection and Survival of Obligations: Upon termination of this Agreement the Facility shall be disconnected from the Company's system. The termination of this Agreement shall not relieve the parties of their liabilities and obligations, owed or continuing at the time of the termination.

Deleted: ¶

Formatted: Indent: Left: 0"

Deleted: ¶
(a)

Deleted: , without liability.

Deleted: (b) [FOR SELLER THAT IS AN AGENCY OF THE DEPARTMENT OF DEFENSE (the "DOD")]¶
¶
The DOD shall not operate equipment that superimposes a voltage or current upon the Company's system that interferes with the Company's operations, service to the Company's customers, or the Company's communication facilities Such interference shall include, but not be limited to, overcurrent, voltage imbalance, and abnormal waveforms If such interference occurs, the DOD must diligently pursue and take corrective action at its own expense after being given notice and reasonable time to do so by the Company. If the DOD does not take timely corrective action, or continues to operate the equipment causing interference without restriction or limit, the Company may disconnect the DOD's equipment from the Company's system.¶
¶

Deleted: The term of this Agreement may include a period subsequent to the FIT Term coincident with the Company's exercise of its option to purchase electricity from Seller determined at the sole discretion of Company.

16. Indemnification:

(a) The Seller shall indemnify, defend and hold harmless the Company and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Company's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Seller (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Facility and/or the Seller Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Company or its officers, directors, agents or employees.

(b) The Company shall indemnify, defend and hold harmless the Seller, and its officers, directors, agents and employees, from and against all liabilities, damages, losses, fines, penalties, claims, demands, suits, costs and expenses (including reasonable attorney's fees and expenses) to or by third persons, including the Seller's employees or subcontractors, for injury or death, or for injury to property, arising out of the actions or inactions of the Company (or those of anyone under its control or on its behalf) with respect to its obligations under this Agreement, and/or arising out of the installation, operation and maintenance of the Company System and/or the Company Interconnection Facilities, except to the extent that such injury, death or damage is attributable to the gross negligence or intentional act or omission of the Seller or its officers, directors, agents or employees.

(c) Nothing in this Agreement shall create any duty to, any standard of care with reference to, or any liability to any person or entity not a party to it.

17. Insurance: The Seller shall, at its own expense and during the term of the Agreement and any other time that the Facility is interconnected with the Company's system, maintain in effect with a responsible insurance company authorized to do insurance business in Hawaii, insurance that will adequately protect the Seller and the Company with respect to risks arising under this Agreement, including the Facility's interconnection with the Company's system, as provided for in Seller's Schedule FIT Agreement. The Seller's indemnity and other obligations shall not be limited by this provision. Proof of such insurance, including certificates of insurance showing the form and amounts of coverage, must be provided to the Company prior to any parallel interconnection.

18. Force Majeure: For purposes of this Agreement, "Force Majeure Event" means any event: (a) *that is beyond the reasonable control of the affected party; and (b) that the affected party is unable* to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fires; strikes, work stoppages, or labor disputes;

Deleted: Superseding SHEET NO. 34C-20 REVISED SHEET NO. 34C-20A Effective April 18, 2008 . Effective ¶ ¶

Deleted: *(d) . [FOR SELLER THAT IS AN AGENCY OF THE STATE OF HAWAII (the "State")]*¶ ¶ The State shall be responsible for damages or injury caused by the State's agents, officers, and employees in the course of their employment to the extent that the State's liability for such damage or injury has been determined by a court or otherwise agreed to by the State. The State shall pay for such damage and injury to the extent permitted by law. The State shall use reasonable good faith efforts to pursue any approvals from the Legislature and the Governor that may be required to obtain the funding necessary to enable the State to perform its obligations or cover its liabilities hereunder. The State shall not request Company to indemnify the State for, or hold the State harmless from, any claims for such damages or injury.¶ ¶ Company shall be responsible for damages or injury caused by Company, Company's agents, officers, and employees in the course of their employment to the extent that Company's liability for such damage or injury has been determined by a court or otherwise agreed to by Company, and Company shall pay for such damage and injury to the extent permitted by law. Company shall not request the State to indemnify Company for, or hold Company harmless from, any claims for such damages or injury.¶ ... [6]

Formatted: Indent: Left: 0", Hanging: 0.5", Tabs: Not at 0.5"

Deleted: ¶ ¶

Deleted: ¶ (b) . [FOR SELLER THAT IS AN AGENCY OF THE DEPARTMENT OF DEFENSE (the "DOD")] ¶ ¶ . The Interconnection Seller is considered to be self-insured and shall not be required to maintain any separate policy of insurance under this section of the agreement. Notwithstanding the a ... [7]

Deleted: HAWAIIAN ELECTRIC COMPANY, INC.¶ ¶ PUC Order No. 24159 Dated April 18, 2008, Docket No. 2006-0497¶ Transmittal Letter Dated .¶

embargoes; and sabotage. If a Force Majeure Event prevents a party from fulfilling any obligations under this Agreement, such party will promptly notify the other party in writing, and will keep the other party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected party is taking to mitigate the effects of the event on its performance. The affected party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected party will use reasonable efforts to resume its performance as soon as possible.

19. Warranties: The Company and the Seller each represents and warrants respectively that:

(a) It has all necessary right, power and authority to execute, deliver and perform this Agreement.

(b) The execution, delivery and performance of this Agreement by it will not result in a violation of any law or regulation of any governmental authority, or conflict with, or result in a breach of, or cause a default under, any agreement or instrument to which such party is also a party or by which it is bound.

20. Miscellaneous:

(a) Amendments. Any amendment or modification of this Agreement or any part hereof shall not be valid unless in writing and signed by the parties. Any waiver hereunder shall not be valid unless in writing and signed by the party against whom waiver is asserted.

(b) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, legal representatives, and permitted assigns.

(c) Notices. Any written notice provided hereunder shall be delivered personally or sent by registered or certified first class mail, with postage prepaid, to the other party at the following addresses:

Company: _____
_____
_____
Attn: _____

Seller: The mailing address listed in Exhibit A attached hereto.

Notice sent by mail shall be deemed to have been given on the date of actual delivery or at the expiration of the fifth day after the date of mailing, whichever is earlier. Any party

Deleted: 20 . Good Engineering Practice.¶
¶
(a) Each party agrees to install, operate and maintain its respective equipment and facilities and to perform all obligations required to be performed by such party under this Agreement in accordance with good engineering practice in the electric industry and with applicable laws, rules, orders and tariffs.¶
¶
(b) Wherever in this Agreement and the attached Exhibits the Company has the right to give specifications, determinations or approvals, such specifications, determinations or approvals shall be given in accordance with the Company's standard practices, policies and procedures, which may include the Company's Electric Service Installation Manual, the Company's Engineering Standard Practice Manual and IEEE Guides and Standards for Protective Relaying Systems.¶
¶

Deleted: 1

Deleted: HAWAIIAN ELECTRIC COMPANY, INC.¶
¶
PUC Order No. 24159 Dated April 18, 2008, Docket No. 2006-0497¶
Transmittal Letter Dated .¶

hereto may change its address for written notice by giving written notice of such change to the other party hereto.

(d) Effect of Section and Exhibit Headings. The headings or titles of the several sections and exhibits hereof are for convenience of reference and shall not affect the construction or interpretation of any provision of this Agreement.

(e) Relationship of Parties. Nothing in this Agreement shall be deemed to constitute any party hereto as partner, agent or representative of the other party or to create any fiduciary relationship between the parties.

(f) Entire Agreement. This Agreement constitutes the entire understanding and agreement between the Company and the Seller.

(g) Limitations. Nothing in this Agreement shall limit the Company's ability to exercise its rights or expand or diminish its liability with respect to the provision of electrical service pursuant to the Company's Tariff as filed with the State of Hawaii Public Utilities Commission ("PUC"), or the PUC's Standards for Electric Utility Service in the State of Hawaii, which currently are included in the PUC's General Order Number 7, as either may be amended from time to time.

(h) Governing Law and Regulatory Authority. This Agreement was executed in the State of Hawaii and must in all respects be governed by, interpreted, construed, and enforced in accordance with the laws thereof. This Agreement is subject to, and the parties' obligations hereunder include, operating in full compliance with all valid, applicable federal, state, and local laws or ordinances, and all applicable rules, regulations, orders of, and tariffs approved by, duly constituted regulatory authorities having jurisdiction.

(i) Multiple Counterparts. This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

IN WITNESS WHEREOF, the Company and the Seller have executed this Agreement as of the day and year first above written.

By _____
Name
Title
Date

By _____
Name
Title
Date

By _____
Name
Title
Date

"Company"

"Seller"

EXHIBIT A

DESCRIPTION OF SELLER'S GENERATING FACILITY

Section 1, Applicant Information

Seller

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): Area Code ____ Number _____ (Evening) Area Code ____ Number _____

E-mail: _____ Account Number:

Facility Location (if different from above): _____

Facility Location Tax Map Key number): _____

Section 2, Generator Qualifications

Is Generator powered from a Nonfossil Fuel Source? ☐ Yes ☐ No

Type of Nonfossil Fuel Source: ☐ Solar ☐ Wind ☐ Hydro ☐ Biomass ☐ Geothermal

PV Array DC Rated Output: ☐ kW PV Array AC Rated Output: ☐ kW

Maximum Site Load without Gener_____ kW Maximum Generator Capability:_____ kW

Minimum Site Load without Generation: _____ kW Maximum Export: _____ kW

Section 3, Generator Technical Information

Type of Generator: ☐ Synchronous ☐ Induction ☐ Inverter-Based Generating Facility

Generator (or solar collector) Manufacturer, Model Name & Number: _____

(A copy of Generator Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Nameplate Rating in kW: _____

Operating Power Factor: _____

Inverter Manufacturer, Model Name & Number (if used): _____

(A copy of Inverter Nameplate and Manufacturer's Specification Sheet may be substituted)

_____ Rating in kW: _____

Operating Power Factor: _____

Number of Starts Per Day: _____ Maximum Starting kVA: _____

UF Trip Setting: _____ UF Time Delay (Secs) _____

Generator Grounding Method:

☐ Effectively Grounded ☐ Resonant Grounded

☐ Low-Inductance Grounded ☐ High-Resistance Grounded

☐ Low-Resistance Grounded ☐ Ungrounded

Generator Characteristic Data (for rotating machines):
(Not needed if Generator Nameplate and Manufacturer's Specification Sheet are provided)

Direct Axis Synchronous Reactance, X_d: _____ P.U.
Direct Axis Transient Reactance, X'_d: _____ P.U.
Direct Axis Subtransient Reactance, X''_d: _____ P.U.
Inertia Constant, H: _____ P.U.
Excitation Response Ratio: _____
Direct Axis Open-Circuit Transient Time Constant, T'do: _____ Seconds
Direct Axis Open-Circuit Subtransient Time Constant, T"do: _____ Seconds

Negative Sequence Reactance: _____ P.U.
Zero Sequence Reactance: _____ P.U.
KVA Base: _____

Fault Current Contribution of Generator: _____ Amps

Section 4, Interconnecting Equipment Technical Data

Will an interposing transformer be used between the generator and the point of interconnection? ☐ Yes ☐ No

Transformer Data (if applicable, for Seller Owned Transformer):
(A copy of transformer Nameplate and Manufacturer's Test Report may be substituted)

Size: ___ KVA. Transformer Primary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Secondary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Impedance: _____ % on _____ KVA Base

Transformer Fuse Data (if applicable, for Seller Owned Fuse):
(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

At ☐ Primary Voltage ☐ Secondary Voltage

Manufacturer : _____ Type : _____ Size: _____ Speed: _____

Transformer Protection (if not fuse):

Please describe: _____

Interconnecting Circuit Breaker (if applicable):
(A copy of circuit breaker's Nameplate and Specification Sheet may be substituted)

Manufacturer : _____ Type: _____

Continuous Load Rating: _____ **(Amps)** Interrupting Rating: _____ **(Amps)** Trip Speed: _____ **(Cycles)**

Formatted Table

Circuit Breaker Protective Relays (if applicable):

(Enclose copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____	Formatted Table	
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____		
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____		
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____		
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____		

Current Transformer Data (if applicable):

(Enclose copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer: _____	Type: _____	Accuracy Class: _____	Proposed Ratio Connection: _____	/5	Formatted Table	
Manufacturer: _____	Type: _____	Accuracy Class: _____	Proposed Ratio Connection: _____	/5		

Generator Disconnect Switch:

A generator disconnect device (isolation device) must be installed with features as described in the FIT Interconnection Standards And Technical Requirements.

Manufacturer: _____	Type: _____	Catalog No.: _____	Rated Volts: _____	Rated Amps: _____	Formatted Table	

Single Phase or 3: _____ Mounting Location: _____

Section 5, General Technical Information

Enclose copy of site single-line diagram showing configuration and interconnection of all equipment, current and potential circuits and protection and control schemes.

Is Single-Line Diagram Enclosed? Yes ☐

Enclose copy of site relay list and trip scheme, which shall include all protection, synchronizing and auxiliary relays that are required to operate the Facility in a safe and reliable manner.

Are Relay List and Trip Scheme Enclosed? Yes ☐

Enclose copy of site three-line diagram (if the Facility's capacity is greater than or equal to 30 kW) showing potential transformer and current transformer ratios, and details of the Facility's configuration, including relays, meters, and test switches.

Is Three-Line Diagram Enclosed? Yes ☐

Section 6, Installation Details

Installing Electrical Contractor: _____ Firm: _____ License No.: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: Area Code: _____ Number: _____

Installation Date: _____ Interconnection Date: _____

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the county of _____

Signed (Inspector): _____ Date: _____

(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

Section 7, Generator/Equipment Certification

Generating systems that utilize inverter technology must be compliant with *Institute of Electrical and Electronics Engineers IEEE Std 1547* and *Underwriters Laboratories UL 1741* in effect at the time this Agreement is executed. Generating systems that use a rotating machine must be compliant with applicable National Electrical Code, Underwriters Laboratories, and Institute of Electrical and Electronics Engineers standards and rules and orders of the Hawaii Public Utilities Commission in effect at the time this Agreement is executed. **By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.**

Signed (Seller): _____ Date: _____

Section 8, Insurance

Insurance Carrier: _____

EXHIBIT B

FACILITY OWNED BY THE SELLER

1. Facility

a. Compliance with laws and standards. The Facility, Facility design, and Facility design drawings shall meet all applicable national, state, and local laws, rules, regulations, orders, construction and safety codes, and shall satisfy the Company's FIT Interconnection Standards And Technical Requirements ("Interconnection Standards").

b. Avoidance of adverse system conditions. The Facility shall be designed, installed, operated and maintained so as to prevent or protect against adverse conditions on the Company's system that can cause electric service degradation, equipment damage, or harm to persons, such as:

(i) Unintended islanding.

(ii) Inadvertent and unwanted re-energization of a Company dead line or bus.

(iii) Interconnection while out of synchronization.

(iv) Overcurrent.

(v) Voltage imbalance.

(vi) Ground faults.

(vii) Generated alternating current frequency outside of permitted safe limits.

(viii) Voltage outside permitted limits.

(ix) Poor power factor or reactive power outside permitted limits.

(x) Abnormal waveforms.

c. Specification of protection, synchronizing and control requirements. The Seller shall provide the design drawings, operating manuals, manufacturer's brochures/instruction manual and technical specifications, manufacturer's test reports, bill of material, protection and synchronizing relays and settings, and protection, synchronizing, and control schemes for the Facility to the Company for its review, and the Company shall have the right to specify the protection and synchronizing relays and settings, and protection, synchronizing and control schemes that affect the reliability and safety of operation and power quality of the Company's system with which the Facility is interconnected ("Facility Protection Devices/Schemes"). After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Company's system operations, at the Company's expense. After the implementation of the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, the Company may require changes in the protection and synchronizing relays and settings, and protection, synchronizing and control schemes, when required by the Facility's operations, at the Seller's expense.

d. Facility protection. The Seller is solely responsible for providing adequate protection for the Facility.

e. Seller Interconnection Facilities.

(i) The Seller shall furnish, install, operate and maintain interconnection facilities (such as circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes) designated by or acceptable to the Company as suitable for parallel operation of the Facility with the Company's system ("Seller Interconnection Facilities"). Such facilities shall be accessible at all times to authorized Company personnel.

(ii) The Seller shall comply with Apppendix I of the Company's Rule 14H (the Company's "Interconnection Standards"). If a conflict exists between the Interconnection Standards and this Agreement, the Interconnection Standards will control.

Deleted:

Deleted: is Agreement shall

(iii) A 1) single-line diagram, 2) relay list, trip scheme and settings of the Facility, 3) Facility Equipment List, and 4) three-line diagram (if the Facility's capacity is greater than or equal to 30 kW), which identify the circuit breakers, relays, switches, synchronizing equipment, monitoring equipment, and control and protective devices and schemes, shall, after having obtained prior consent from the Company, be attached to this Exhibit B and made a part hereof at the time the Agreement is signed. The single-line diagram shall include pertinent information regarding operation, protection, synchronizing, control, monitoring and alarm requirements. The single-line diagram and three-line diagram shall expressly identify the point of interconnection of the Facility to the Company's system. The relay list, trip scheme and settings shall include all protection, synchronizing and auxiliary relays that are required to operate the Facility in a safe and reliable manner. The three-line diagram shall show potential transformer and current transformer ratios, and details of the Facility's configuration, including relays, meters, and test switches.

f. Approval of Design Drawings. If the Facility's capacity is greater than or equal to 30 kW, the single-line diagram, relay list, trip scheme and settings of the Facility, and three-line diagram shall be approved by a Professional Electrical Engineer registered in the State of Hawaii prior to being submitted to the Company. Such approval shall be indicated by the engineer's professional seal on all drawings and documents.

2. Verification Testing.

a. Upon initial parallel operation of the Facility, or any time interface hardware or software is changed, a verification test of Seller Interconnection Facilities shall be performed by Seller. A qualified individual, hired or employed by the Seller, shall perform the verification testing in accordance with the manufacturer's published test

procedure. Qualified individuals include professional engineers, factory trained and certified technicians, and licensed electricians with experience in testing protective equipment. The Company reserves the right to witness verification testing or require written certification that the testing was performed.

b. Verification testing shall be performed every four years. All verification tests prescribed by the manufacturer shall be performed. If wires must be removed to perform certain tests, each wire and each terminal shall be clearly and permanently marked. The Seller shall maintain verification test reports for inspection by the Company.

c. Single-phase inverters rated 10 kVA and below (if any) shall be verified once per year as follows: once per year the Seller shall operate the load break disconnect switch and verify the Facility automatically shuts down and does not reconnect with the Company's system until the Company's system continuous normal voltage and frequency have been maintained for a minimum of 5 minutes. The Seller shall maintain a log of these operations for inspection by the Company.

d. Any system that depends upon a battery for trip power shall be checked once per month for proper voltage. Once every four (4) years the battery shall either be replaced or have a discharge test performed. The Seller shall maintain a log of these operations for inspection by the Company.

e. Tests and battery replacements as specified in this section 2 of Exhibit B shall be at the Seller's expense.

3. Inspection of the Facility.

a. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless otherwise agreed to by the Company and the Seller), observe the construction of the Facility (including but not limited to relay settings and trip schemes) and the equipment to be installed therein.

b. Within fourteen days after receiving a written request from the Seller to begin producing electric energy in parallel with the Company's system, the Company may inspect the Facility (including but not limited to relay settings and trip schemes) and observe the performance of the verification testing. The Company may accept or reject the request to begin producing electric energy based upon the inspection or verification test results.

c. If the Company does not perform an inspection of the Facility (including but not limited to relay settings and trip schemes) and observe the performance of verification testing within the fourteen-day period, the Seller may begin to produce energy after certifying to the Company that the Facility has been tested in accordance with the verification testing requirements and has successfully completed such tests. After receiving the certification, the Company may conduct an inspection of the Facility (including but not limited to relay settings and trip schemes) and make reasonable inquiries of the Seller, but only for

purposes of determining whether the verification tests were properly performed. The Seller shall not be required to perform the verification tests a second time, unless irregularities appear in the verification test report or there are other objective indications that the tests were not properly performed in the first instance.

d. The Company may, in its discretion and upon reasonable notice not to be less than 24 hours (unless an apparent safety or emergency situation exists which requires immediate inspection to resolve a known or suspected problem), inspect the Facility (including but not limited to relay settings and trip schemes) and its operations (including but not limited to the operation of control, synchronizing, and protection schemes) after the Facility commences operations.

4. Operating Records and Procedures.

a. The Company may require periodic reviews of the maintenance records, and available operating procedures and policies of the Facility.

b. The Seller must separate the Facility from the Company's system whenever requested to do so by the Company's System Operator pursuant to Sections 8 and 9 of the Agreement. It is understood and agreed that at times it may not be possible for the Company to accept electric energy due to temporary operating conditions on the Company's system, and these periods shall be specified by the Company's System Operator. Notice shall be given in advance when these are scheduled operating conditions.

Deleted: ,

Deleted: , and 11

c. Logs shall be kept by the Seller for information on unit availability including reasons for planned and forced outages; circuit breaker trip operations, relay operations, including target initiation and other unusual events. The Company shall have the right to review these logs, especially in analyzing system disturbance.

5. Changes to the Facility, Operating Records, and Operating Procedures.

a. The Seller agrees that no material changes or additions to the Facility as reflected in the single-line diagram, relay list, trip scheme and settings of the Facility, Facility Equipment List, and three-line diagram (if the Facility's capacity is greater than or equal to 30 kW), shall be made without having obtained prior written consent from the Company.

b. As a result of the observations and inspections of the Facility (including but not limited to relay list, trip scheme and settings) and the performance of the verification tests, if any changes in or additions to the Facility, operating records, and operating procedures and policies are required by the Company, the Company shall specify such changes or additions to the Seller in writing, and the Seller shall, as soon as practicable, but in no event later than thirty (30) days after receipt of such changes or additions, respond in writing, either noting agreement and action to be taken or reasons for disagreement. If the Seller disagrees with the Company, it shall note alternatives it will take to accomplish the

same intent, or provide the Company with a reasonable explanation as to why no action is required by good engineering practice.

Facility Equipment List

The Facility shall include the following equipment:

(This Facility Equipment List, together with the single-line diagram, relay list and trip scheme, and three-line diagram (if the Facility's capacity is greater than or equal to 30 kW), should be attached behind Exhibit B.

EXHIBIT C

INTERCONNECTION FACILITIES OWNED BY THE COMPANY

1. Description of Company Interconnection Facilities

The Company will purchase, construct, own, operate and maintain all interconnection facilities required to interconnect the Company's system with the Facility at ___ volts, up to the point of interconnection.

The Company Interconnection Facilities, for which the Seller shall pay, include:

[Need to specify the interconnection facilities. If no interconnection facilities, state "None".]

2. Seller Payment to Company for Company Interconnection Facilities

The Seller shall pay to the Company the total estimated interconnection cost to be incurred by the Company (Total Estimated Interconnection Cost), which is comprised of (i) the estimated cost of the Company Interconnection Facilities, (ii) the estimated engineering costs associated with developing the Company Interconnection Facilities. The following summarizes the Total Estimated Interconnection Cost:

Description	Estimated Cost ($)

[Need to specify the estimated interconnection cost. If no cost, state "None". If the Company determines that there are benefits to the utility system due to the Company interconnection facilities, a credit reflecting these benefits shall be provided to the Seller, subject to Commission approval. See Appendix III, Section 2.d concerning this subject. The amount of the credit reflecting these benefits, if any, would be reflected in this section of the Standard Interconnection Agreement.]

Total Estimated Interconnection Cost **$**

The Total Estimated Interconnection Cost, which, except as otherwise provided herein, is non-refundable, shall be paid by the Seller fourteen (14) days after receipt of an invoice from the Company, which shall be provided not less than thirty (30) days prior to start of procurement of the Company Interconnection Facilities.

Within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of completion of construction of the Company Interconnection Facilities, the Seller shall remit to the Company the difference between the Total Estimated Interconnection Cost paid to date and the lesser of one hundred twenty percent (120%) of the Total Estimated Interconnection Cost or the total actual interconnection cost (Total Actual Interconnection Cost). The latter is comprised of (i) the total

Deleted: agrees to

Deleted: , Review of Facility, and Review of Verification Testing

Deleted: a)

Deleted: and b) reviewing and specifying those portions of the Facility which allow interconnected operations as such are described in Exhibit B, and ii) reviewing the verification testing

Deleted: .

costs of the Company Interconnection Facilities, and (ii) the total engineering costs associated with developing the Company Interconnection Facilities. If the Total Actual Interconnection Cost is less than the payments received by the Company as the Total Estimated Interconnection Cost, the Company shall repay the difference to the Seller within thirty (30) days of the final accounting.

If the Agreement is terminated prior to the Seller's payment for the Total Actual Interconnection Cost (or the portion of this cost which has been incurred) or prior to the Company's repayment of the overcollected amount of the Total Estimated Interconnection Cost (or the portion of this cost which has been paid), such payments shall be made by the Seller or Company, as appropriate. If payment is due to the Company, the Seller shall pay within thirty (30) days of receipt of an invoice, which shall be provided within fourteen (14) days of the final accounting, which shall take place within sixty (60) days of the date the Agreement is terminated. If payment is due to the Seller, the Company shall pay within thirty (30) days of the final accounting.

All Company Interconnection Facilities shall be the property of the Company.

3. Seller Use of Company Interconnection Facilities Upon Termination

Notwithstanding that all Company Interconnection Facilities are the property of the Company, upon termination of the Agreement, the Company shall identify any equipment paid for by the Seller that can feasibly be returned to the Seller. If Seller desires such equipment, Seller may acquire such equipment if Seller pays for the removal of the equipment and the restoration of the Company's system to the Company's satisfaction.

Deleted: a)

Deleted: and b) reviewing and specifying those portions of the Facility which allow interconnected operations as such are described in Exhibit B, and iii) reviewing the verification testing

Deleted: in fact

Deleted: ¶

Page Break

3. . Operation, Maintenance and Testing Costs¶

¶

The Company will bill the Seller monthly and the Seller will, within 30 days after the billing date, reimburse the Company for any costs incurred in operating, maintaining or testing the Company Interconnection Facilities, to the extent such costs are not included in or are not appropriate for inclusion in the Company's base rates. The Company's costs will be determined on the basis of outside service costs, direct labor costs, material costs, transportation costs, applicable overheads at time incurred and applicable taxes. Applicable overheads will include such costs as vacation, payroll taxes, non-productive wages, supervision, tools expense, employee benefits, engineering administration, corporate administration, and materials handling. Applicable taxes will include the Public Service Company Tax, and Public Utility Fee ¶

¶

Deleted: 4

Deleted:

Deleted: shall

APPENDIX C

PURCHASE OF ENERGY BY COMPANY

1. Rate for Purchase of Energy. Subject to the provisions of this Agreement, the Company shall purchase and pay for energy generated by Seller's Facility and delivered by Seller to the Company, and for energy that would have been generated by the Facility and delivered to the Company's System, but for curtailment by the Company of such generation and/or delivery, at the rate set forth in Table C-1 below beginning from the Commercial Operation Date.

Deleted: accept

Deleted: Generating

[Table C-1 placeholder]

Year	Rate
Years 1-20	$0.xxxx/kWh

Deleted: HAWAIIAN ELECTRIC COMPANY, INC.¶
¶
PUC Order No. XXXX Dated _____, Docket No. 2008-0273¶
Transmittal Letter Dated _____, 2009¶

CERTIFICATE OF SERVICE

I hereby certify that I have this date filed and served the original and eight copies of the foregoing **COMMENTS OF ZERO EMISSIONS LEASING LLC AND CLEAN ENERGY MAUI LLC ON PROPOSED TIERS 1 AND 2 TARIFFS** in Docket No. 2008-0273, by hand delivery to the Commission at the following address:

CARLITO CALIBOSO
PUBLIC UTILITIES COMMISSION
465 S. King Street, Suite 103
Honolulu, HI 96813

I further certify that copies of the foregoing **COMMENTS OF ZERO EMISSIONS LEASING LLC AND CLEAN ENERGY MAUI LLC ON PROPOSED TIERS 1 AND 2 TARIFFS** have been served upon the following parties and participants by causing copies hereof to be hand delivered, mailed by first class mail or electronically transmitted to each such party as follows:

DEAN NISHINA
EXECUTIVE DIRECTOR
DEPARTMENT OF COMMERCE
AND CONSUMER AFFAIRS
DIVISION OF CONSUMER ADVOCACY
P.O. Box 541
Honolulu, HI 96809

2 copies
Via Hand Delivery

DARCY L. ENDO-MOTO
VICE PRESIDENT
GOVERNMENT & COMMUNITY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P.O. Box 2750
Honolulu, HI 96840-0001

Electronically Transmitted

DEAN MATSUURA
DIRECTOR, REGULATORY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P.O. Box 2750
Honolulu, HI 96840-0001

Electronically Transmitted

JAY IGNACIO
PRESIDENT
HAWAII ELECTRIC LIGHT COMPANY, INC.
P.O. Box 1027
Hilo, HI 96721-1027

Electronically Transmitted

EDWARD L. REINHARDT
PRESIDENT
MAUI ELECTRIC COMPANY, LIMITED
P.O. Box 398
Kahului, HI 96733-6898

Electronically Transmitted

ROD S. AOKI, ESQ.
ALCANTAR & KAHL LLP
120 Montgomery Street, Suite 2200
San Francisco, CA 94104

Electronically Transmitted

Counsel for HECO Companies

THOMAS W. WILLIAMS, JR., ESQ.
PETER Y. KIKUTA, ESQ.
DAMON L. SCHMIDT, ESQ.
GOODSILL ANDERSON QUINN & STIFEL
Alii Place, Suite 1800
1099 Alakea Street
Honolulu, HI 96813

Electronically Transmitted

Counsel for HECO Companies

THEODORE PECK
DEPARTMENT OF BUSINESS, ECONOMIC
DEVELOPMENT AND TOURISM
State Office Tower
235 South Beretania Street, Room 500
Honolulu, HI 96813

Electronically Transmitted

ESTRELLA SEESE
DEPARTMENT OF BUSINESS, ECONOMIC
DEVELOPMENT AND TOURISM
State Office Tower
235 South Beretania Street, Room 502
Honolulu, HI 96813

Electronically Transmitted

MARK J. BENNETT, ESQ.
DEBORAH DAY EMERSON, ESQ.
GREGG J. KINKLEY, ESQ.
DEPARTMENT OF THE ATTORNEY GENERAL

Electronically Transmitted

425 Queen Street
Honolulu, HI 96813

Counsel for DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM

CARRIE K.S. OKINAGA, ESQ
GORDON D. NELSON, ESQ.
DEPARTMENT OF CORPORATION COUNSEL
CITY AND COUNTY OF HONOLULU
530 S. King Street, Room 110
Honolulu, HI 96813

Electronically Transmitted

Counsel for the CITY AND COUNTY OF HONOLULU

LINCOLN S.T. ASHIDA, ESQ.
WILLIAM V. BRILHANTE, JR., ESQ.
MICHAEL J. UDOVIC
DEPARTMENT OF THE CORPORATION COUNSEL
COUNTY OF HAWAII
101 Aupuni Street, Suite 325
Hilo, HI 96720

Electronically Transmitted

Counsel for the COUNTY OF HAWAII

HENRY Q. CURTIS
KAT BRADY
LIFE OF THE LAND
76 North King Street, Suite 203
Honolulu, HI 96817

Electronically Transmitted

CARL FREEDMAN
HAIKU DESIGN & ANALYSIS
4324 Hana Highway
Haiku, HI 96708

Electronically Transmitted

WARREN S. BOLLMEIER II
PRESIDENT
HAWAII RENEWABLE ENERGY ALLIANCE
46-040 Konane Place, # 3816
Kaneohe, HI 96744

Electronically Transmitted

DOUGLAS A. CODIGA, ESQ.
SCHLACK ITO LOCKWOOD PIPER & ELKIND
Topa Financial Center
745 Fort Street, Suite 1500
Honolulu, HI 96813

Electronically Transmitted

Counsel for BLUE PLANET FOUNDATION

MARK DUDA
PRESIDENT
HAWAII SOLAR ENERGY ASSOCIATION
P.O. Box 37070
Honolulu, HI 96837

Electronically Transmitted

ISAAC H. MORIWAKE, ESQ.
DAVID L. HENKIN, ESQ.
EARTHJUSTICE
223 South King Street, Suite 400
Honolulu, HI 96813-4501

Electronically Transmitted

Counsel for HAWAII SOLAR ENERGY ASSOCIATION

RILEY SAITO
THE SOLAR ALLIANCE
73-1294 Awakea Street
Kailua-Kona, HI 96740

Electronically Transmitted

JOEL K. MATSUNAGA
HAWAII BIOENERGY, LLC
737 Bishop Street, Suite 1860
Pacific Guardian Center, Mauka Tower
Honolulu, HI 96813

Electronically Transmitted

CAROLINE BELSOM
MAUI LAND & PINEAPPLE COMPANY, INC.
P.O. Box 187
Kahului, HI 96733-6687

Electronically Transmitted

KENT D. MORIHARA, ESQ.
KRIS N. NAKAGAWA, ESQ.
SANDRA L. WILHILDE, ESQ.
MORIHARA LAU & FONG LLP
841 Bishop Street, Suite 400
Honolulu, HI 96813

Electronically Transmitted

Counsel for HAWAII BIOENERGY, LLC and
MAUI LAND & PINEAPPLE COMPANY, INC.

THEODORE E. ROBERTS
SEMPRA GENERATION
101 Ash Street, HQ 10
San Diego, CA 92101-3017

Electronically Transmitted

JOHN N. REI
SOPOGY, INC.
2660 Waiwai Loop
Honolulu, HI 96819

Electronically Transmitted

GERALD A. SUMIDA, ESQ.
TIM LUI-KWAN, ESQ.
NATHAN C. NELSON, ESQ.
CARLSMITH BALL LLP
ASB Tower, Suite 2200
1001 Bishop Street
Honolulu, HI 96813

Electronically Transmitted

Counsel for HAWAII HOLDINGS, LLC, dba FIRST WIND HAWAII

CHRIS MENTZEL
CHIEF EXECUTIVE OFFICER
CLEAN ENERGY MAUI LLC
619 Kupulau Drive
Kihei, HI 96753

Electronically Transmitted

HARLAN Y. KIMURA, ESQ.
Central Pacific Plaza
220 South King Street, Suite 1660
Honolulu, HI 96813

Electronically Transmitted

Counsel for TAWHIRI POWER LLC

SANDRA-ANN Y.H. WONG, ESQ.
ATTORNEY AT LAW, A LAW CORPORATION
1050 Bishop Street #514
Honolulu, HI 96813

Electronically Transmitted

Counsel for ALEXANDER & BALDWIN, INC., through its division, HAWAIIAN COMMERCIAL & SUGAR COMPANY

DATED: Honolulu, Hawaii, January 21, 2010

Erik Kvam
ERIK KVAM